

( 286 ) PYRUS COMMUNIS LINN.  
ROSACEAE

**English Name :** Pear, Common pear.

**Local Name :** انجاص ، كمثري

**Description :** A well known tree 3 - 4 m. high. Leaves deciduous, oval, glabrous with long petioles. Flowers white in bunches. The pear fruit is a small green or brown in colour.

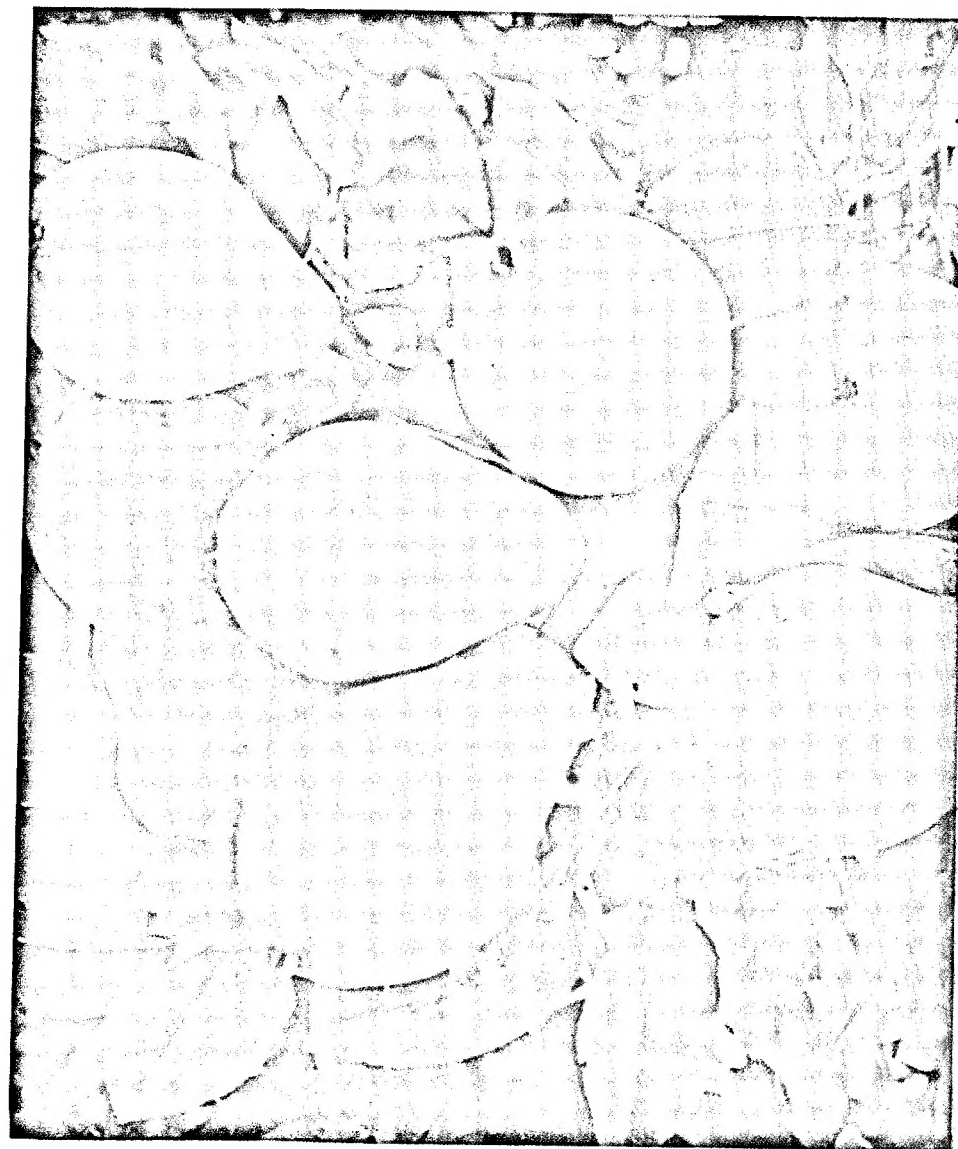
The tree is cultivated for the production of the edible fruit.

**Part Used :** Leaves and fruits.

**Principle constituents :** Leaves contain arbutin. The bark of the root contains tannin and phlorhizin. The fruit is rich in pectin and protein. Seeds contain amygdalin. Dry leaf contain arbutin, tannin.

**Uses:** Leaf decoction relaxes cramps. The fruit is edible and hypotensive. It is a good nutrient, given to children and in cases of anemia and diarrhea.

**References :** 1, 3, 1-, 21, 22, 25, 40.



( 287 ) PYRUS MALUS      MILL .  
ROSACEAE

**English Name :** Apple.

**Local Name :** تفاح

**Description :** A cultivated tree often of pyramidal shape 12 - 15 m high. Leaves ovate cordate. Flower white in corymbs.

Fruit is the well known apple.

**Part Used :** Ripe fruits and roots.

**Principle constituents :** The fruit is rich in pectin, it contains malic acid, citric acid, sucrose and other sugars, tannin quercetine and enzymes. Seeds contain amygdalin. Leaves contain phloretin and bark contains tannin and malic acid.

**Uses :** The fruit is very good for diarrhea especially for children. It is a good nutrient. In the form of a powder it is given to children in case of gastroenteritis. It is a say that one apple a day keeps the doctor away.

Roots are anthelmintic and hypnotic.

**References :** 1, 3, 10, 12, 21, 24, 40, 43.



( 288 ) QUERCUS ROBUR LINN .

FAGACEAE

**English Name :** Pedunculate - oak, Chestnut - oak, Red - oak.

**Local Name :** بلوط اسود ، بلوط اكل

**Description :** A large tree with an enormous crown and massive thick trunk. Leaves lobed, short petioles, pale undersurface. Acorns borne on peduncles 2 - 4 cm long single or in pairs.

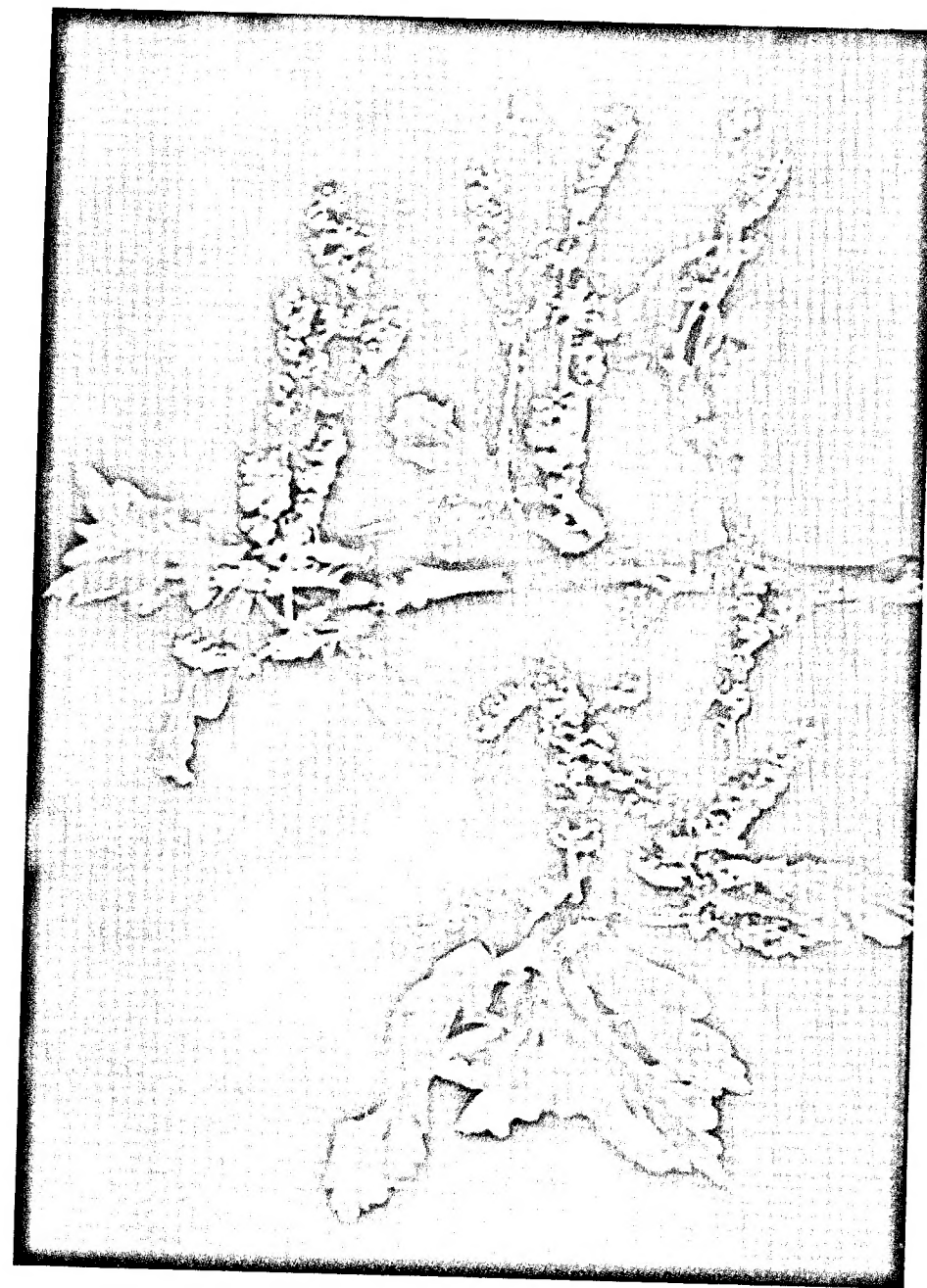
The tree is reported to be on the road between Garian and Yefren. It is possible to be in Jebel Nefusa.

**Part Used :** The young bark and leaves.

**Principle constituents :** Tannin and quercitrin.

**Uses:** The plant is very astringent, deodorant, decongestive and used to prevent internal haemorrhage. Externally it is haemostatic and antiseptic, used to treat haemorrhoids, anal fissures, as gargle it is good for tonsils and pharyngitis. Powdered plant prevents tooth decay.

**References :** 1, 3, 19, 22, 38, 40, 43, 44, 50.



( 289 ) RANUNCULUS REPENS LINN.  
RANUNCULACEAE

**English Name :** Buttercup.

**Local Name :** المداد ، رجل الغراب

**Description:** Perennial spreading weed with leafy runners. Leaves are large 3 parted, borne near the base at the ground.

Flower bright yellow, cup - shaped. The plant is a common weed in the cultivated areas.

**Part Used :** The fresh plant.

**Principle constituents :** The juice contains unstable al - pha - lactone protoanemonin .

**Uses :** The juice has vesicant properties. The fresh plant is used externally in cases of eczema , erysipes , pruritis , rheumatism , sciatica , arthritis and rhinitis .

The plant is poisonous.

**References :** 1, 3, 10, 12, 19, 21, 26, 40.



( 290 ) **RAPHANUS RAPHANISTRUM. LINN.**  
**CRUCIFERAE**

**English Name :** Wild radish, White charlock, Runch .

**Local Name :** فجل بري ، عيش وجين

**Description :** An annual plant 40 - 100 cm high. Leaves are lobed. Flowers pale yellow turning whitish or yellowish with conspicuous purple veins. Seed - pod necklace form with 2 - 8 nodes.

The plant occurs as a weed in cultivated areas .

**Part Used :** The seeds.

**Principle constituents :** Seeds contain the gluco - alkaloid sinalbin which is hydrolized by the enzyme myronase into acrinlysothiocyanate and the alkaloid sinapine acid sulphate as in white mustard seeds.

**Uses :** Rubefacient, stimulant, irritant and emetic. In small doses it is used as appetizer. It is also used as antihaemorrhagic.

It causes gastroenteritis and liver and kidney disorders.

**References :** 1, 2, 3, 10, 19, 24, 32, 33, 40.





( 291 ) **RAPHANUS SATIVUS** LINN.

**CRUCIFERAE**

**English Name :** Garden radish.

**Local Name :** فجل

**Description :** An annual cultivated plant with white, yellowish or deep black - brown fusiform or half globular roots. Leaves rough lyrate or sometimes lobed. Flower white to pale violet with dark veins.

**Part Used :** Roots and leaves.

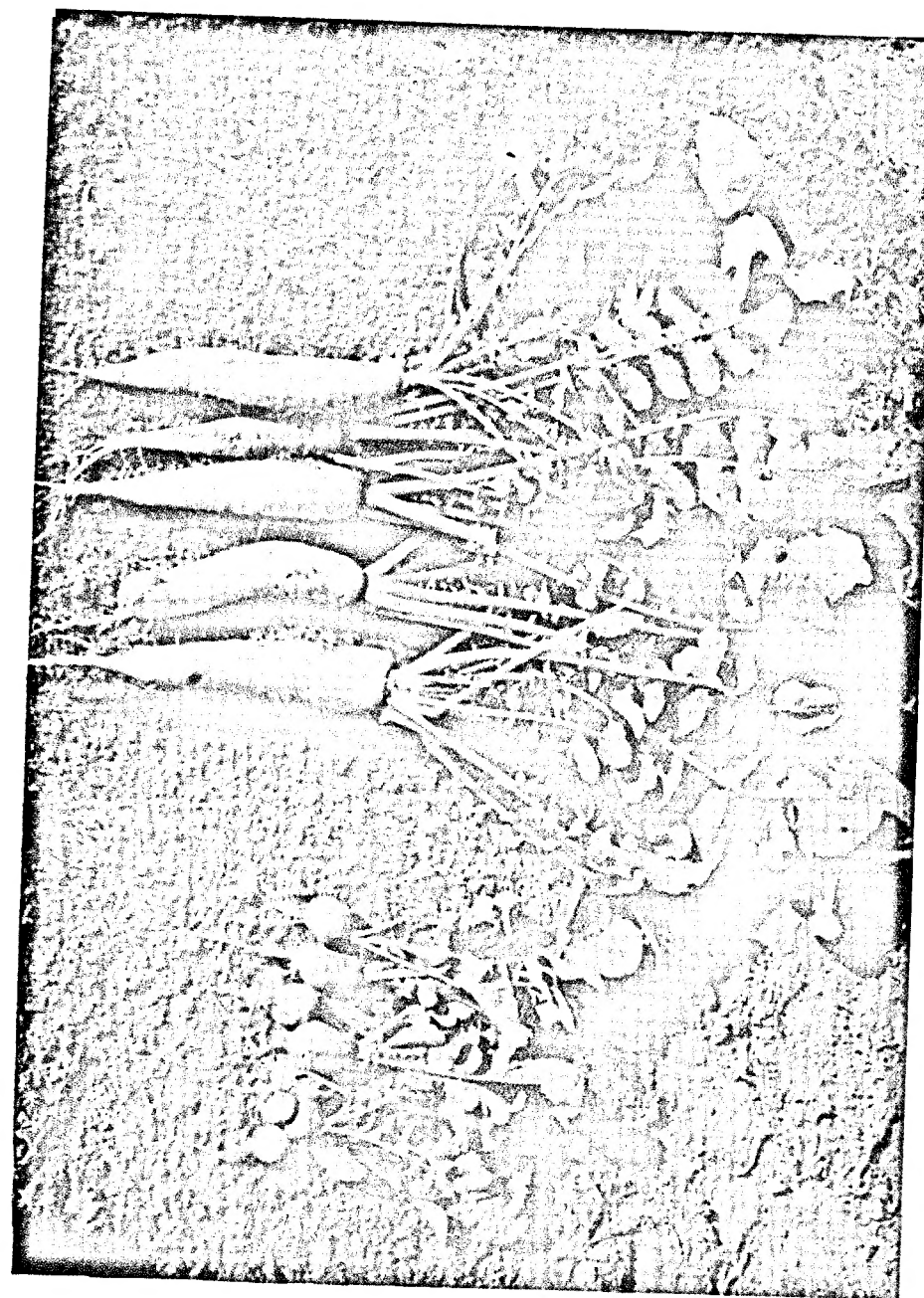
**Principle constituents :** Roots contain raphanol, rettichol, methylmercaptan, sinapine, oxidase, peroxidase, pigments and erucic acid. It contains raphanin which has antibiotic activity against Gram - ve and Gram + ve bacteria. It contains the glucoside glucoraphanin which upon hydrolysis gives the sulphur compound sulphoraphin. Seeds contain fixed oil and volatile oil similar to mustard oil.

**Used :** Root tincture is used against insomnia, nervousness and hepatic infections.

Leaf juice is diuretic, laxative, carminative and a good source of vitamins.

The plant is cultivated for culinary purposes.

**References :** 1, 3, 10, 12, 22, 24, 40.



( 292 ) RESEDA LUTEOLA LINN.  
RESEDACEAE

**English Name :** Dyer's weed, Weld, Dyer's rocket, Reseda.

**Local Name :** بقم ، خزام ، بليحه ، وييه

**Description :** An annual or biennial tall branching herb. Flowers yellow occur in narrow, spikelike raceme.

The plant grows in Benghazi area .

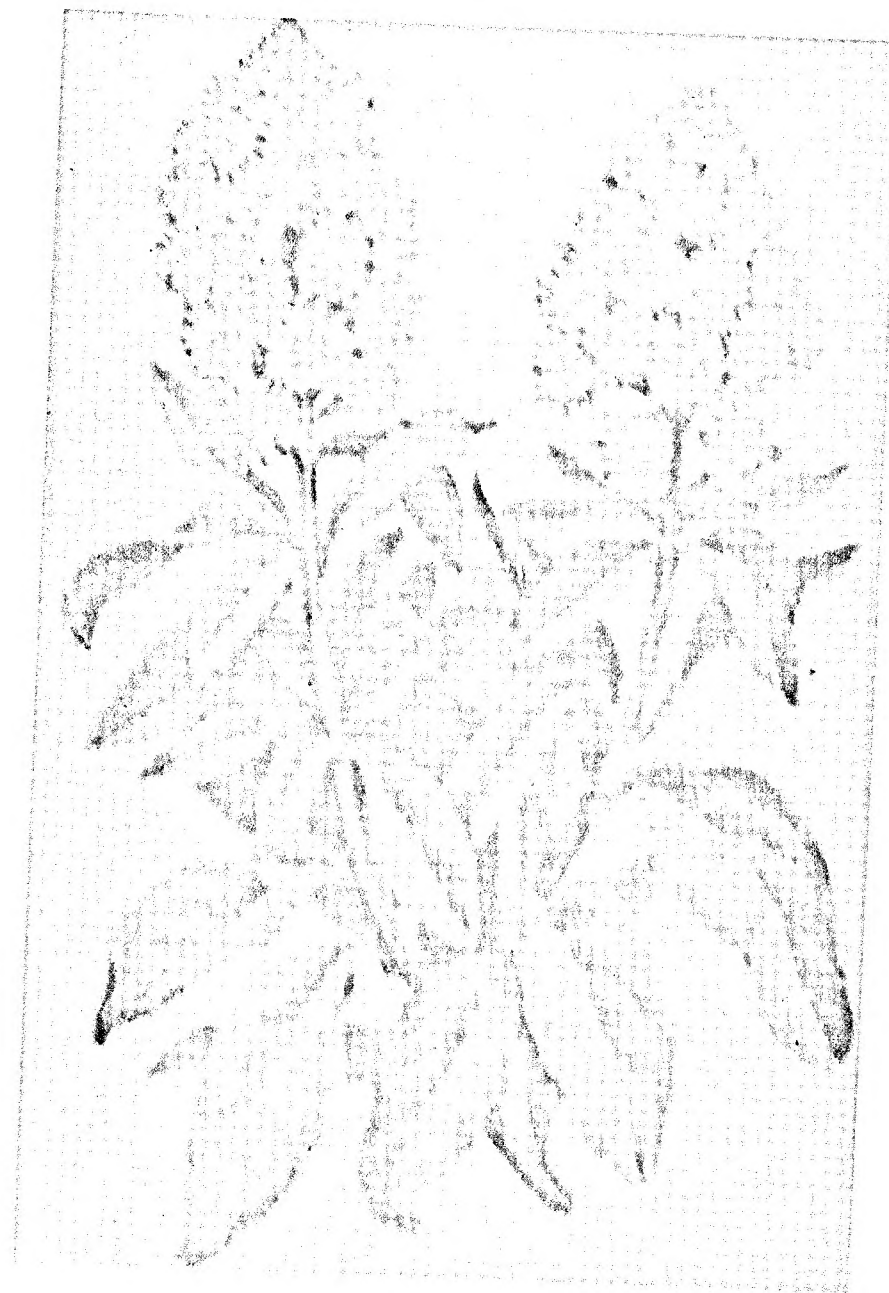
**Part Used :** The entire herb.

**Principle constituents :** The plant contains the flavone yellow dye luteolin and other pigments. Seeds contain fixed oil .

**Uses :** The plant has diaphoretic, diuretic and anthelmintic properties. It is not used medicinally, sometimes used as a source of a yellow dye used in colouring tissues.

The plant is toxic .

**References :** 1, 3, 10, 21, 38, 40.



( 293 ) RETAMA RAETAM FORSK.  
LEGUMINOSAE

**English Name :** Juniper bush, White broom.

**Local Name :** رتم

**Description :** A smooth shrub about 1.5- 2m high. Calyx more or less dark red. Corolla white. Fruit pod one seeded.

The plant is common in Fezzan, Tripoli, Ain Zara, Homs, Tarhuna and Tobruk.

**Part Used :** The entire plant.

**Principle constituents :** Leaves, wood and fruits contain colouring matters, alkaloids retamine and sparteine. Seeds contain fixed oil and sitosterol .

**Uses:** The colouring matters are used in textile and food industry. Retamine alkaloid has a remarkable effect on the heart. Sparteine is oxytotic on all parts of the human uterus.

The plant is toxic .

**References :** 1, 2, 3, 33, 34.





( 294 ) RHAMNUS CATHARTICA LINN.

RHAMNACEAE

**English Name :** Buckthorn, Common buckthorn, Buring buckthorn.

**Local Name :** عوسج ، شجرة الدكن

**Description :** An evergreen shrub 3 - 5 m high without thorns. Leaves alternate glabrous, petioled having parallel veins. Male and female yellow flowers occur on separate plants. Fruit small berry, size of a small pea. Seeds yellow.

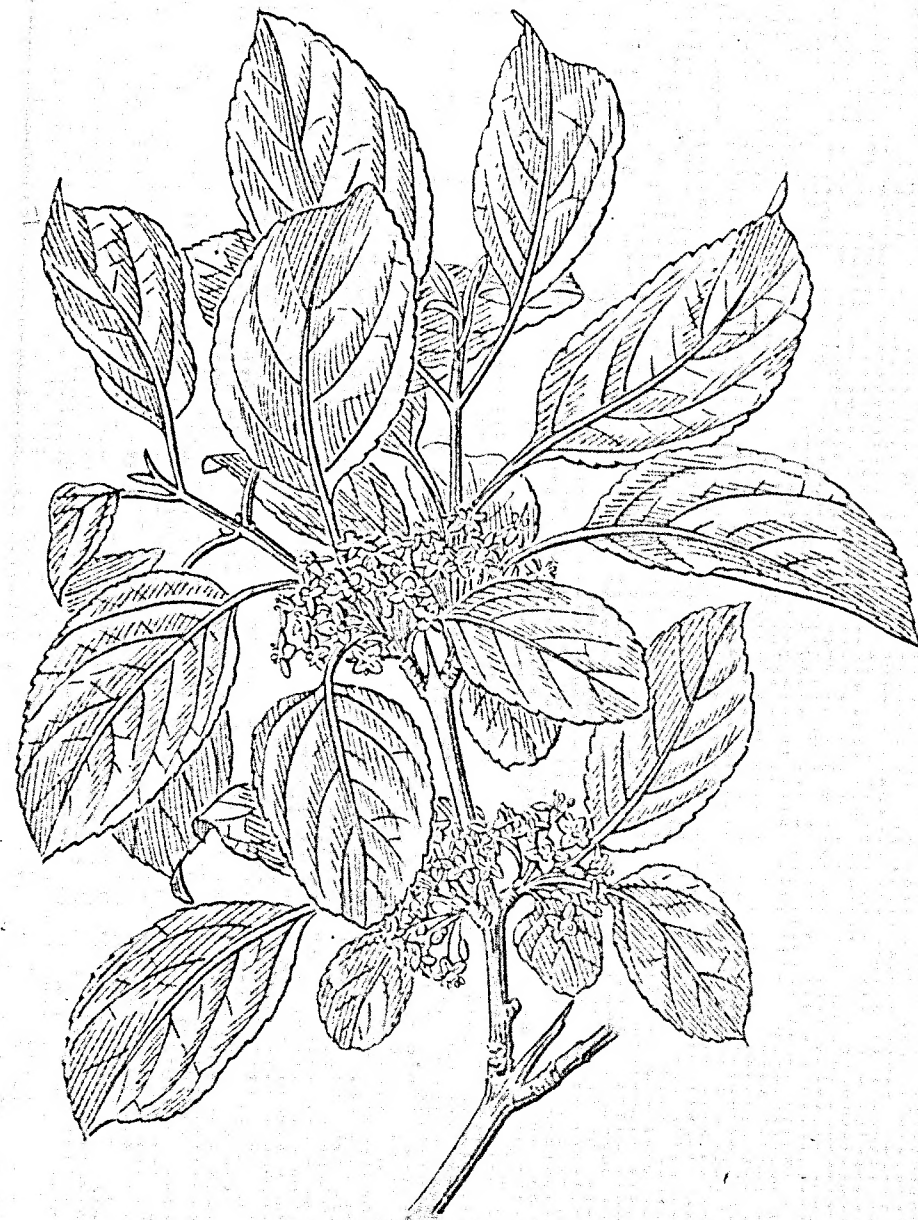
The plant grows in limestone rocks in Benghazi area.

**Part Used :** Fruits ( berries ) and bark.

**Principle constituents:** Anthraquinone glycosides, their aglycones , pigments , organic acids and sugars .

**Uses :** Purgative and diuretic. Fruit is dangerous to children.

**References :** 1, 19, 22, 25, 26, 38, 40.



( 295 ) RHEUM RHAPONTICUM LINN.  
POLYGONACEAE

**English Name :** Rhubarb, Garden rhubarb, Rhapontic.

**Local Name :** راوند ، إطر اوندی

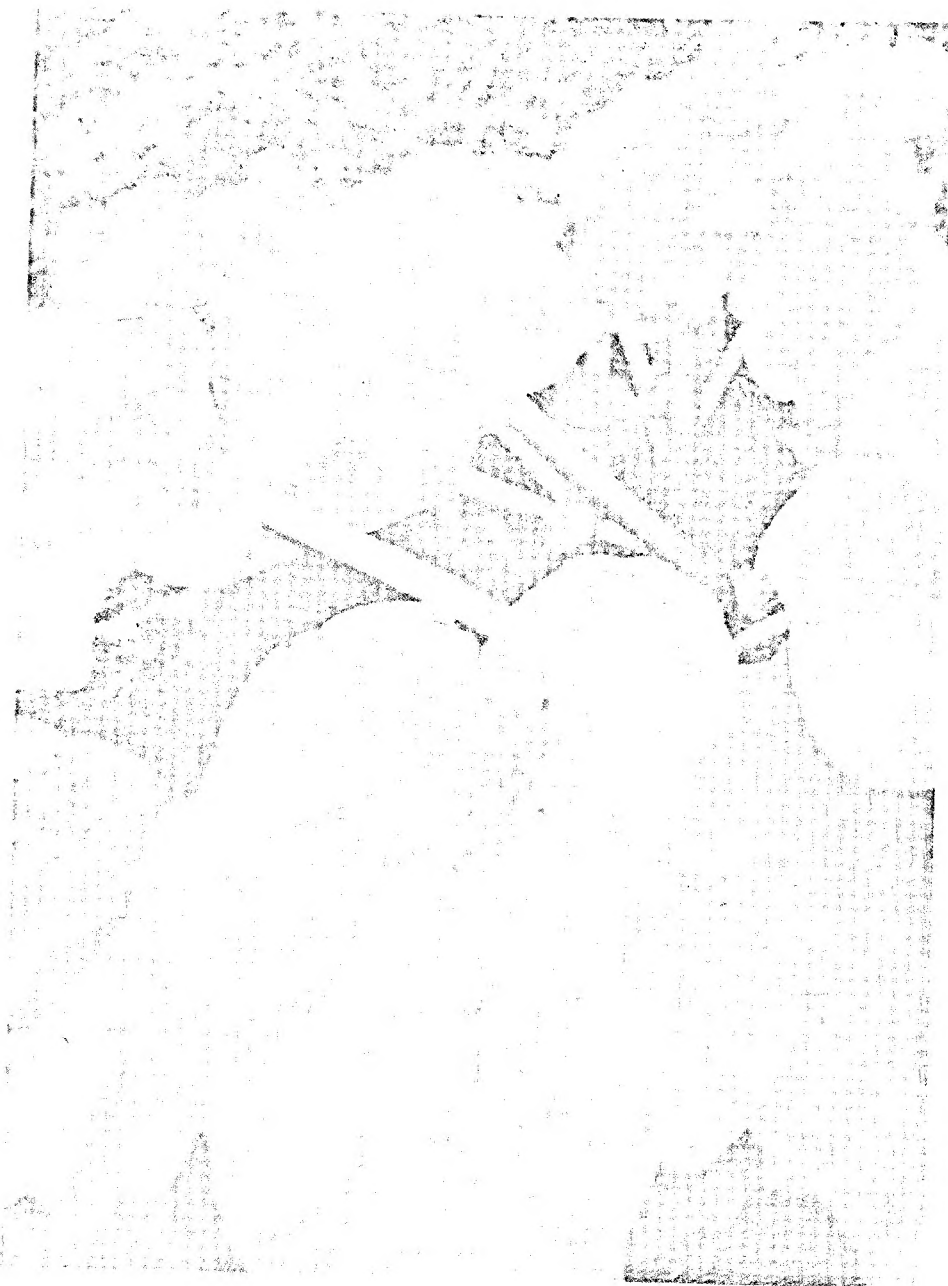
**Description :** Rhubarb is a perennial herb 1.20 m high with thick somewhat woody rhizome. Leaves round, deeply cordate at the base, stalks long, thick fleshy, channelled above. Flower in a dense, leafy fastigate panicle.

**Part Used :** Rhizomes and leaf petiole.

**Principle constituents :** Rhizomes contain anthroquinone derivatives and large amount of tannins, oxalic acid, potassium and calcium oxalates. Leaves are more rich in oxalic acid, petiole contains malic and citric acids, vitamin C and rutin.

**Uses :** Rhizomes are stomachic and laxative. The petiole is the edible part of the plant. Sometimes fetal poisoning cases occur due to eating the leaves. Poisoning symptoms appear as diarrhea, vomiting and sometimes abortion. The plant inhibits the growth of *Staphylococcus aureus* and *Brucella abortus*.

**References :** 1, 3, 25, 26.



( 296 ) RICINUS COMMUNIS LINN.  
EUPHORBIACEAE

**English Name :** Castor beans, Castor seeds, Castor.

**Local Name :** خروع

**Description :** A tree up to 4 m high or more with herbaceous stem. Leaves ovate oblong or lanceolate acuminate - glabrous lobes. Inflorescence panicles flowering from the base. Fruit a spiny capsule. Flowers red. The plant is scattered all over the Jamahiriya.

**Part Used :** The entire plant and fixed oil expressed from the seeds .

**Principle constituents :** The seed contains fixed oil about 50% which contains the fatty acid ricinoleic , taxalbumin ricin , the alkaloid ricine  $C_8H_8O_2N_2$  m. p. 201 - 205 °C containing nitrile group and the enzyme lipase . The other parts of the plant contain sterols , triterpenes , tannins , saponins , riboflavine , nicotinic acid and traces of rutin glycoside .

**Uses:** The oil is cathartic, purgative or emollient ( ricinoleic acid is the purgative principle ). Low grades of oil are used in industry as lubricants. Leaves and roots are used in the treatment of rheumatism, lumbago and sciatica. Root paste or root boiled with corn stalks and smeared on teeth and gums relieves toothache. The oil contains the phytotoxin ricin which is a teratogen and mitogenic . It coagulates blood , causes vomiting , diarrhea , sweating then death . Root bark has anti - inflammatory property .

**References :** 1, 2, 3, 10, 12, 14, 19, 21, 22, 25, 26, 30, 32, 33, 37, 38.



( 297 ) **ROBINIA PSEUDACACIA**      **LINN.**  
**LEGUMINOSAE**

**English Name :** Black locust, Common robinia, False acacia, Locust .

**Local Name :** شجرة الجراد

**Description :** A medium sized, thorny tree up to 24 m high deciduous. Leaves alternate, small stipules usually thorny, leaflets odd - pinnate and stalked.

Flower in axillary raceme , white , rarely rose , very fragrant . Pod flat , linear several seeded .

The plant was cultivated in Shahat.

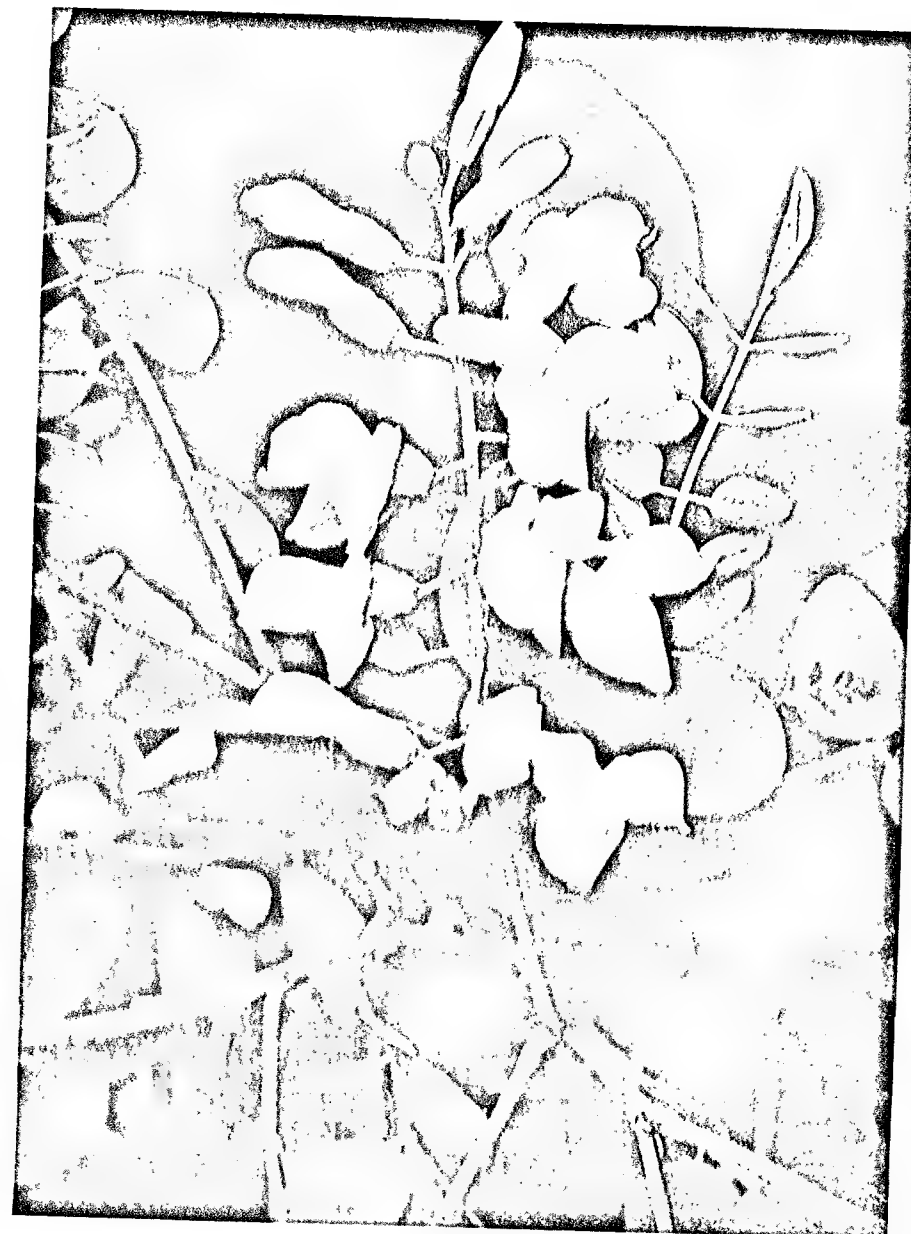
**Part Used :** Flowers.

**Principle constituents :** Flowers contain the water soluble protein robin and an unknown glycoside .

**Uses :** It is used as antispasmodic. It has mitogenic properties.

Leaves , roots and bark are toxic , due to the presence of robin .

**References :** 1, 3, 22, 26, 38, 50.



( 298 ) ROSA CENTIFOLIA LINN.  
ROSACEAE

**English Name :** Cabbage rose, Hundred leaved rose.

**Local Name :** ورد كثير الأوراق

**Description :** The rose shrub is known everywhere. Rosa centifolia is characterized by its pink flowers 7 cm in diameter, very double and fragrant. It is known as « Rose of a hundred petals » due to the numerous petals of the flower.

**Part Used :** Root, leaves, seeds, petals and flowers.

**Principle constituents :** volatile oil containing geraniol alcohol and nerol. The plant contains tannin and colouring matters.

**Uses :** As rosa gallica and damascina. Rose water is aromatic and mild astringent. Seeds are astringent and used in cases of diarrhea, renal cholic and urinary tract infections.

Externally it is used as gargle for throat infections and as eye lotion.

**References :** 1, 3, 10, 12, 21, 38, 50, 57.





( 299 ) ROSA DAMASCENA LINN.

Damascus rose ورد دمشق، ورد جورى

( 300 ) ROSA GALLICA MILL.

Rose, Common rose ورد أحر

ROSACEAE

**Description :** A low shrub with a creeping stem and long branches 50 - 100 cm long, armed with large spines. Flowers large in clusters opening widely with pink or purple petals, very fragrant.

**Part Used :** Flowers, Flower buds, rose hips, petals and volatile oil

**Principle constituents :** Volatile oil containing geraniol, citronellol ( rhodinol , nerol, linalool, eugenol and colourless stearoptene. The petals contain fat, resins, organic acids, vitamin C, cyanidole, quercitrin, gallic acid, quercitannic acid, carotene and red colouring matter.

**Uses :** Mild astringent, carminative, raises blood pressure and cardiotoxic . Rose water is used as aromatic in pharmaceutical preparations and Galenicals . Rose oil is used in perfumery and cosmetics .

**References :** 1, 3, 12, 20, 22, 25, 26, 40, 54.



( 301 ) **ROSMARINUS OFFICINALIS** LINN.  
**LABIATAE**

**English Name :** Rosemary, Common rosemary.

**Local Name :** اكليل ، اكليل الجبل ، حصالبان  
حصالبان

**Description :** A small shrub about one meter high. Leaves are thick, leathery, lanceolate and dark green. Flowers small whitish or pale lilac. The plant has a strong characteristic smell cultivated for seasoning soups and food.

**Part Used :** Leaves and flowering tops.

**Principle constituents :** Volatile oil containing alcohol borneol , bornyl acetate , cineole , alpha - pinene and camphene . The plant contains tannin , rosmarinic acid , bitter principle , picrosalvin which is a diterpené lactone , ursolic and glucoccollic acids , saponins , sterols , glycosides of the genin luteolin and the alkaloid rosmarinine . Leaves contain traces of nicotinic acid .

**Uses :** The plant is carminative, antispasmodic, general tonic in case of excessive physical or intellectual work , emmenagogue , cholagogue , antirheumatic , condiment and respiratory antiseptic . Externally it is rubefacient , stimulates hair growth , used in the treatment of scalp , eczema , rheumatism and in cosmetics especially in hair lotions . Overdose leads sometimes to poisoning and in very few cases to death .

**References :** 1, 3, 10, 11, 12, 21, 24, 25, 26, 38, 39, 40, 43, 50, 54.



( 302 ) RUBUS FRUTICOSUS LINN.  
ROSACEAE

**English Name :** Bramble, Black - berry.

**Local Name :** توت شوكي ، عليق

**Description :** A perennial plant with woody stem either creeping or climbing about 5 m. long, with large hooks along its length. Leaves palmate 3 - 5 rounded leaflets with dentate margins. The petioles and veins also have hooks . Flowers white or pink , 5 petals producing a black compound fruit which is the black - berry .

The plant occurs in Wadi Derna and Jebel Al Akhdar .

**Part Used :** Fruits, leaves and roots.

**Principle constituents :** Tannin, anthocyanin pigments organic acids, cyanidin monoglucoside, sugars and pectin.

**Uses :** Astringent. used as gargle or mouth wash for tonsils sore throat, pharyngitis, buccal ulcers and gingivitis.

Leaf infusion is used in case of dysentery and diarrhea. It stops excess bleeding in menstruation .

Root tincture is used to treat kidney stones and whooping cough in its spasmodic stage. Fruit syrup stops diarrhea in children.

**References :** 1, 3, 12, 21, 22, 24, 37, 38, 40.



( 303 ) RUMEX ACETOSA LINN.

POLYGONACEAE

**English Name :** Garden sorrel, Sour dock, Common sorrel, Dock sorrel

**Local Name :** حمضة ، حمص صغير  
الحميض

**Description :** A perennial weed about 100 cm high with alternate, simple, entire leaves that are arrowshaped up to 13 cm long. Flower dioecious, small, in terminal panicles .

**Part Used :** Fresh leaves, rhizomes and stems.

**Principle constituents :** Leaves contain soluble oxalates , free oxalic acid , potassium binoxalate , oxymethylantraquinone , tartaric acid , tannin and vitamins .

**Uses :** Diuretic and laxative. Leaf tincture is used in the treatment of abscesses, ulcers. Rubbed on the skin it relieves the pain of itching . Rhizomes and seeds are tonic and astringent . Strong decoction is abortifacient and used in tanning.

The plant is toxic when eaten in large amounts due to the presence of free oxalic acid , also not to be used in case of kidney troubles .

**References :** 1, 3, 10, 12, 19, 21, 22, 25, 40, 50.



( 304 ) RUMEX CRISPUS LINN.  
POLYGONACEAE

**English Name :** Curled dock, Yellow dock.

**Local Name :** حميض

**Description :** A perennial weed with a very deep top root. Leaves long curly alternate . Flower small in whorls crowded on a tall spike . Fruit , buckwheat like , brown in colour .

The plant grows in Benghazi, Fueihat and Shahat.

**Part Used :** The whole plant.

**Principle constituents :** Anthraquinone derivatives emodin, chrysophanic acid, volatile oil, resin, tannin, rumicin, sulphur and lapathin which is identical with chrysophanic acid. Roots and rhizomes contain thiamine, iron and rumicin  $C_{14}H_{10}O_4$  .

**Uses :** The plant is tonic, astringent and purgative ( known as toxic laxative ) . The decoction mixed with Teucrium is used in the treatment of anthrax , eczema , ringworm , leprosy and articularia .

The plant is a commercial source of tannin. The powder is used as dentifrice.

Rumicin is rubefacient, destroys skin parasites and used in skin diseases.

**References :** 1, 3, 21, 43, 50, 57.





( 305 ) RUMEX VESICARIUS LINN.  
POLYGONACEAE

**English Name :** Bladder dock, Sorrel .

**Local Name :** حميض ، حنييط

**Description :** An annual plant branching from the neck 10 - 20 cm high. Leaves ovate to deltoid. Flowers yellow greenish to pink.

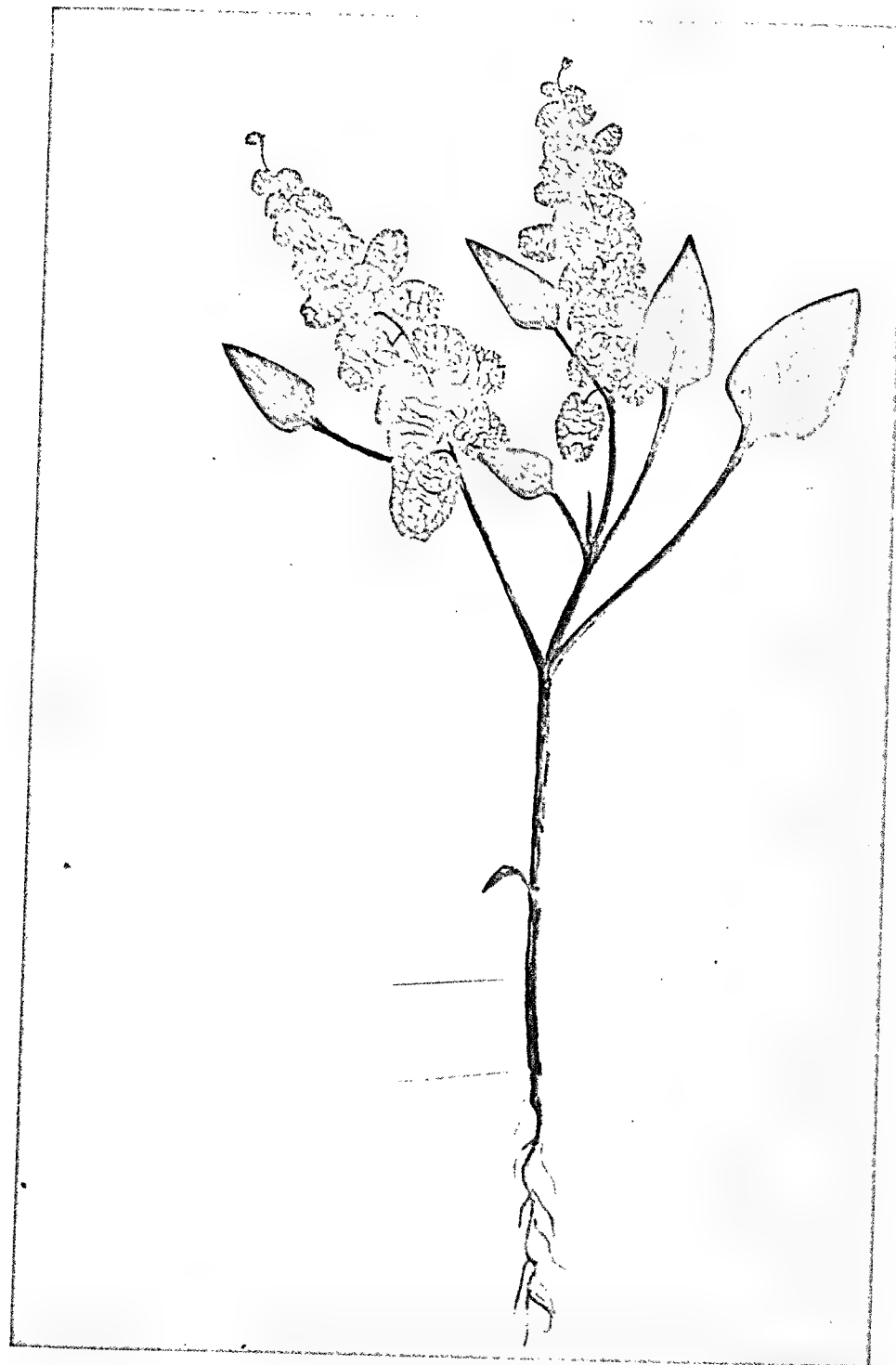
The plant occurs in Tripoli, Benghazi and Fezzan areas .

**Part Used :** Roots , leaves and seeds .

**Principle constituents :** Roots contain rumicin  $C_{14}H_{10}O_4$  , lapathin , tannins , mucilage and emodin .

**Uses :** The plant is tonic, astringent, sedative and antiscorbutic.

**References :** 1, 3, 7, 12, 14, 21.



( 306 ) RUSCUS ACULEATUS LINN.  
LILIACEAE

**English Name :** Prickly box, Butcher's broom, Knee holly.

**Local Name :** شرابه الراعي ، آس بري

**Description :** A stiff low evergreen cultivated shrub with leathery pointed leaves about 4 cm long. Flower green. Fruit berry and very small.

**Part Used :** Rhizomes and leaves which are modified stems.

**Principle constituents :** Ruscogenin which is a steroidal glycoside, volatile oil, saponin glycoside, resins and potassium salts.

**Uses :** Vaso - constrictor, diuretic, stomachic and anti-haemorrhagic. It is used in cases of nephritis, urinary tract infections and in the treatment of haemorrhoids.

**References :** 1, 3, 38, 43, 44, 50.



( 307 ) RUTA GRAVEOLENS LINN.  
RUTACEAE

**English Name :** Common rue, Herb of grace, Rue .

**Local Name :** فيجيل ، سذب

**Description :** A perennial herb with woody base 80 - 100 cm high. Leaves evergreen, alternate , twice compound and fragrant. Flower small dull yellow. Fruit capsule 4 - 5 lobed.

The plant is cultivated for medicinal and culinary purposes.

**Part Used :** Leaves.

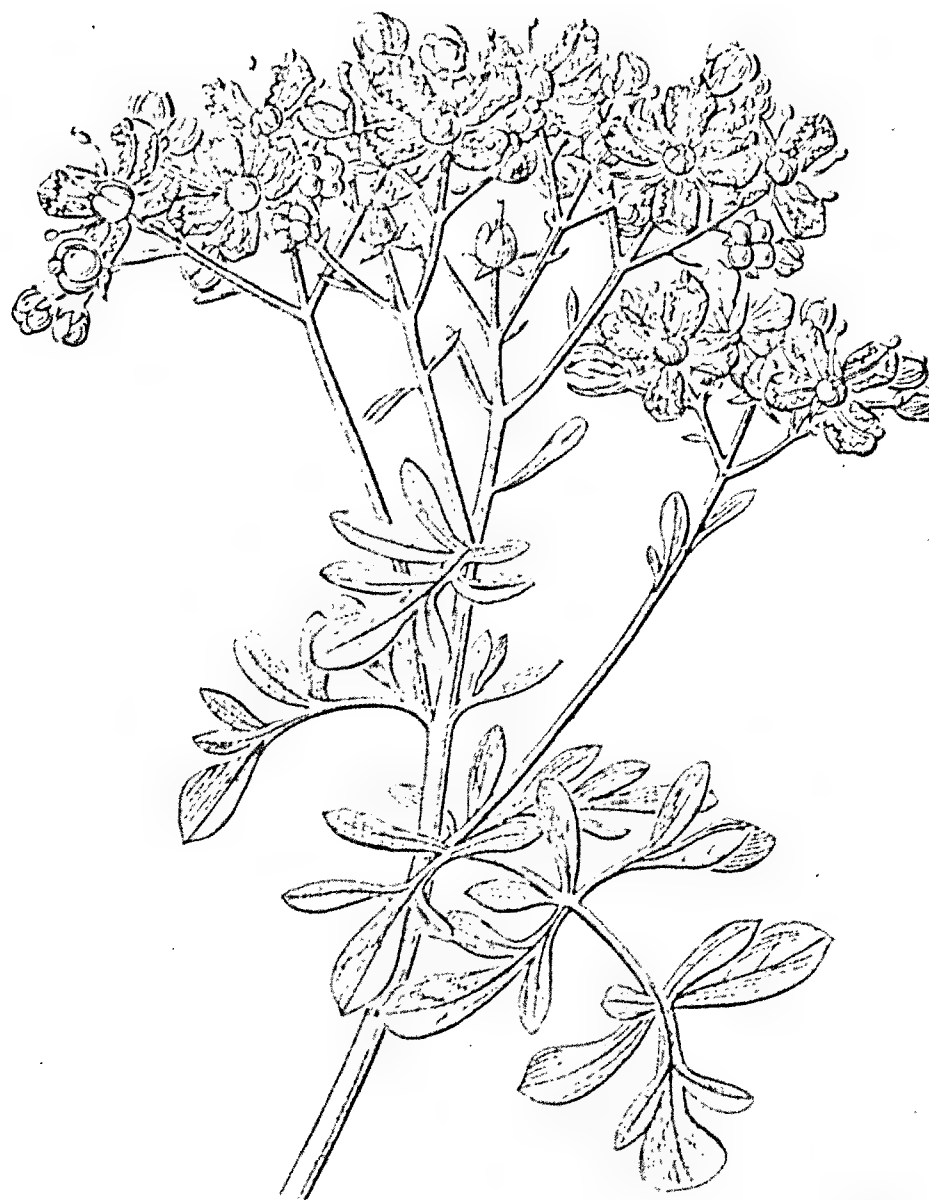
**Principle constituents :** Yellow green volatile oil known as oil of rue, a flavonoid glycoside known as rutin or vitamin P, bergapten , xanthotoxin and emodic acid .

**Uses :** Rutin is used as anticapillary fragility together with vitamin C.

Leaves are used to ease delivery. Hot leaf decoction promotes menstruation and large dose induce foetal expulsion, therefore the plant is emmenagogue and ecbolic. It produces local irritation in mouth and lungs. It is known to be used in cases of convulsions, jaundice, typhoid and scarlet - fever. Bruised leaves relieve teeth and ear pains.

The oil is used in epilepsy. The plant is scorpion repellent.

**References :** 1, 3, 10, 12, 21, 22, 25, 26, 27, 40.



( 308 ) SALIX ALBA LINN.

SALICACEAE

**English Name :** White willow.

**Local Name :** صفاف أبيض ، اسبيدار

**Description:** A large deciduous ornamental, elegant shape tree, 20 - 24 m high. Leaves simple, alternate. Fruit is a catkin.

The plant was introduced and cultivated in moist soils in Sidi El Misri and Derna.

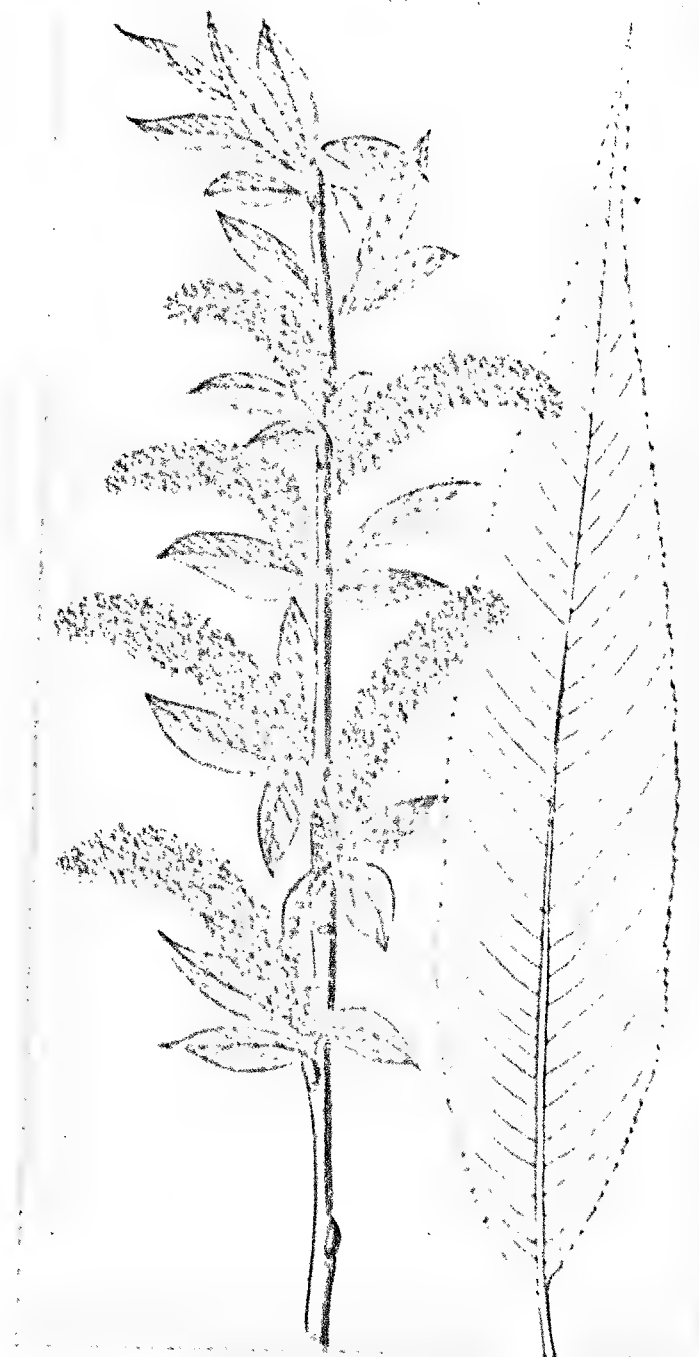
**Part Used :** Bark and leaves.

**Principle constituents :** The plant contains the glycoside salicin which upon hydrolysis gives saligenin. It also contains tannin.

**Uses :** It is used as antirheumatic, analgesic, tonic, antispasmodic and sedative.

The plant is used also for the isolation of the phenolic glycoside salicin.

**References :** 1, 3, 10, 12, 21, 22, 26, 27, 38, 40.



( 309 ) SALSOLA KALI LINN.

CHENOPODIACEAE

**English Name :** Prickly - saltwort, Prickly glass - wort.

**Local Name :** حُرْض ، لبید ، أسنان ، شوك أحمر

**Description :** An annual plant with spreading stems, green with bright red stripes. Leaves short swollen, fleshy, ending in a spine, sometimes pubescent. Flowers green solitary and inconspicuous.

The plant occurs in Bu setta in Tripoli and in Benghazi area.

**Part Used :** The whole plant.

**Principle constituents :** The plant is rich in minerals, calcium, potassium, magnesium, aluminum, phosphorous, sulphates and carbonates. It contains the alkaloids salsolidine, salsoline and others , oxalic acids , oxalates , protein and fat .

**Uses :** The plant is diuretic but it is not used medicinally because it is toxic .

Young plants are used as fodder.

**References :** 1, 2, 3, 10, 12, 22, 32, 33, 38, 40.





( 310 ) SALVADORA PERSICA LINN.  
SALVADORACEAE

**English Name :** Tooth brush tree.

**Local Name :** أراك ، مسّواك

**Description :** A glaucous evergreen shrub or small tree. Flowers white, minute in terminal panicle. Leaves pale green, oblong, entire, short petioled and glabrous. Fruit aromatic.

The plant grows in Jarabub and Kufra.

**Part Used :** Bark, leaves and stems.

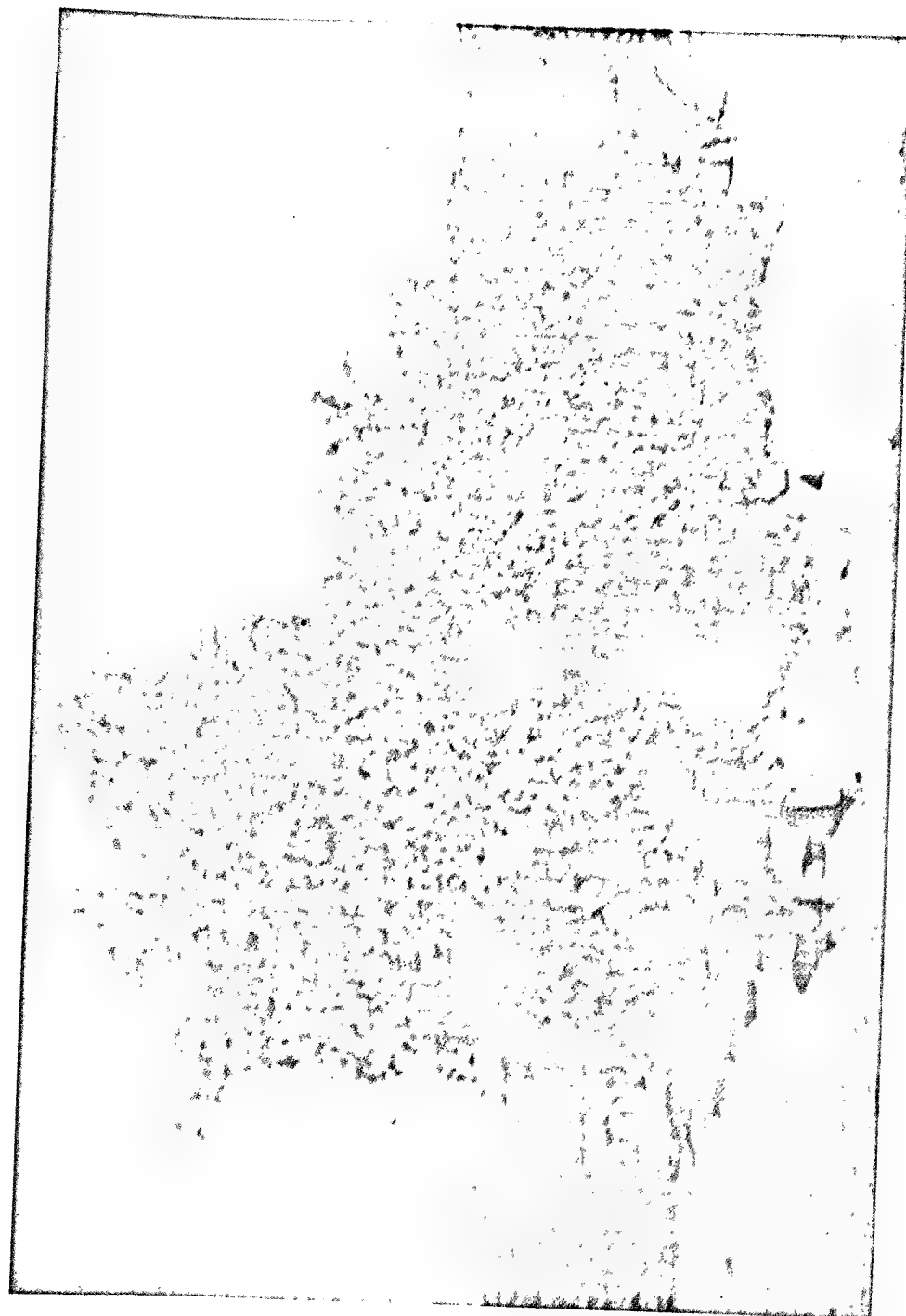
**Principle constituents :** Leaves and bark contain trimethylamine alkaloids , seeds contain fixed oil , volatile oil and resins.

**Uses :** Root bark is acrid and used as a remedy for ancylostomiasis and as ascarifuge.

Powdered root as a paste is used like mustard, the decoction is a remedy for gonorrhoea.

The leaf is diuretic. The stem is used as teeth brush and the resin in manufacturing varnish.

**References :** 1, 2, 3, 7, 10, 12, 21.



( 311 ) SALVIA AEGYPTIACA LINN .

LABIATAE

**English Name :** Sage, Egyptian sage.

**Local Name :** بشاري ، ابو فتاك

**Description :** An aromatic small shrub 10 - 25 cm high with spinescent branches. Leaves petiolate, oblong linear, upper leaves sessile, subulate, crenate. Corolla blue white in colour.

**Part Used :** Seeds and volatile oil

**Principle constituents :** The plant contains volatile oil, terpenes, pinene, cineol, borneol, ursolic acid, flavonoids, glycosides of the genin luteolin, apigenin, tannin, rosmarinic acid and the bitter principle picrosalvin.

**Uses :** The plant is aromatic. It is used in cases of diarrhea, haemorrhoids, gonorrhea, eye diseases and in cosmetics.

**References :** 1, 2, 3, 7, 11, 12, 14, 21.



( 312 ) SALVIA OFFICINALIS LINN.  
LABIATAE

**English Name :** Sage, Sage oil.

**Local Name :** شاي درنه ، شاي الجبل  
مریمیه

**Description :** A small cultivated shrub with a woody base 50 - 80 cm high. Stems erect, herbaceous with long oval, lanceolate, finely wrinkled grey - green leaves and violet flower arranged in a terminal spike.

**Part Used :** The volatile oil and shade dried leaves.

**Principle constituents :** Volatile oil containing the following compounds , the terpene hydrocarbons alpha and beta pinene , myrcene and B - cymene , the sesquiterpenes caryophyllene and alpha - humulene , the oxide cineole , the ketones thujone and camphor and alcohol terpineole . The plant contains tannins and the bitter principle picrosalvin .

**Uses :** It is used as flavouring agent in food. In the form of infusion it is used in cases of nervous disorders, dizziness and trembling. It stops perspiration, the action starts two hours after the dose is taken and prolongs for several days.

The plant also has estrogenic properties.

**References :** 1, 3, 11, 18, 21, 39, 40, 43.



( 313 ) SALVIA SPINOSA LINN.  
LABIATAE

**English Name :** Spiny calyxed sage .

**Local Name :** سلفيا

**Description :** A perennial viciid pubescent plant about 40 cm high with appressed pubescent long petioled ovate sub - cordate rounded leaves, upper leaves clasp the stem. Inflorescence panicle, corolla white.

The plant is common in Tripoli and Benghazi areas .

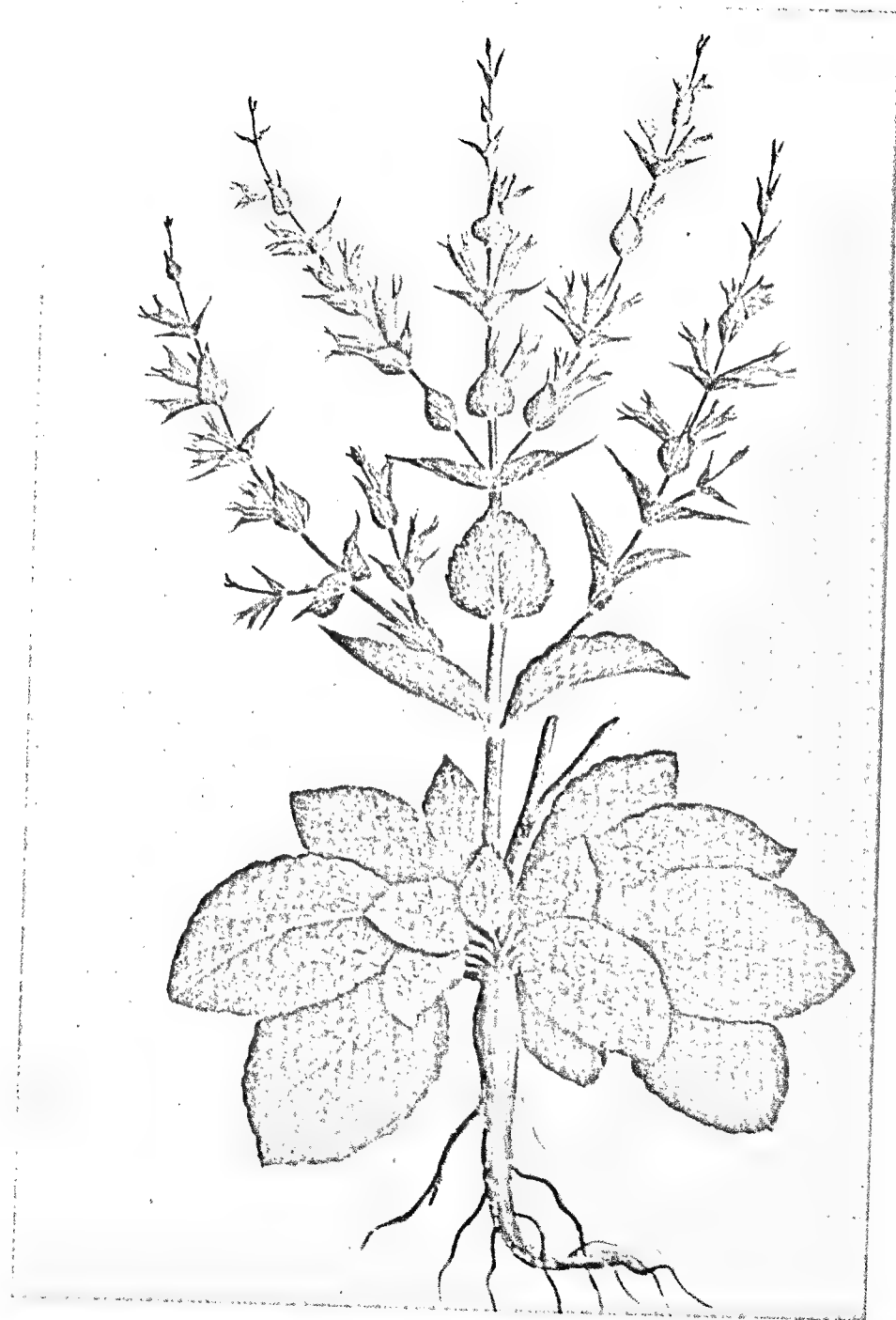
**Part Used :** The herb.

**Principle constituents :** The herb contains sesquiterpenes, isovaleric and acetic acids. aldehydes and volatile oil containing L - hexanol about 13.5% and linalool about 55% .

**Uses :** It has aromatic odour. It is known to be insect repellent if hung up in the room.

Soaked seeds in the water form a thick mucilaginous drink used in gonorrhea and urethritis.

**References :** 1, 2, 3, 14, 21.



( 314 ) SANSEVIERIA ZEYLANICA WILLD.  
LILIACEAE

**English Name :** Bowstring hemp.

**Local Name :** حلق ، دنق

**Description :** A perennial herbaceous cultivated ornamental plant. Leaves sword - shaped 30 - 90 cm long occur in cluster of 8 - 15, variegated with transverse markings or grayish white bands, margins are red lined. Flower greenish white on a long raceme.

**Part Used :** Roots.

**Principle constituents :** Roots contain the alkaloid sansevierine and resins.

Fresh leaves juice contains aconitic acid.

**Uses :** Roots are purgative , tonic , expectorant and antipyretic .

**References :** 1, 3, 21.





(315) SCHINUS MOLLE LINN.

ANACARDIACEAE

**English Name :** Pepper tree, Mastic tree.

**Local Name :** شجرة الفلفل

**Description :** An evergreen ornamental tree upto 6 m high with graceful pendulous foliage. Leaves feather - shaped, alternate, compound 20 - 23 cm long. Sex separate. Flower small, creamcoloured with yellow centres. Fruit small, round, reddish when ripe.

**Part Used :** Fruits.

**Principle constituents :** The flavonoids quercetin, quercetin - 7 glucoside and volatile oil.

**Uses :** Fruits are used in Europe and America as a substitute for black pepper fruits. Now they are not used medicinally but used as condiment.

**References :** 1, 3, 11.



( 316 ) **SENECIO VULGARIS** LINN.  
**COMPOSITAE**

**English Name :** Common groundsel.

**Local Name :** مريره ، مرار ، شبح الربيع  
فليه

**Description :** A garden weed with fleshy erect stem. Leaves alternate, lyre - shaped, lobed with bristles on the margin. Flowers in heads or clusters about 1 cm in diameter, yellow in colour. Seeds have thread - like appendages easily blown by the wind.

**Part Used :** The whole flowering herb.

**Principle constituents :** The plant contains several pyrrolizidine alkaloids silvasenecine, senecine, senecionine, seneciphylline, senecifolidine, senecifoline, jacobine, candoline, othosenine, platyphylline, retrosine and fuchsisenecionine.

**Uses :** The plant is emmenagogue, it regulates menstruation and used as sedative to the uterus. It is astringent, haemostatic, diaphoretic and diuretic. It is rarely used in medicine because it causes hepatic cirrhosis.

**References :** 1, 2, 3, 4, 10, 12, 21, 22, 32, 33, 38, 39, 40.



( 317 ) SILYBUM MARIANUM GAERT.  
CARDUUS MARIANUS LINN.  
COMPOSITAE

**English Name :** Lady's - thistle, Milk - thistle.

**Local Name :** شوك الجمل ، شوك النصارى  
عكوب

**Description :** A robust annual or biennial herb 30 - 90 cm high. Leaves glabrous with undulate margins and sharp spines, brilliant dark green above markedly streaked with white along the veins . Flower heads reddish - purple , solitary with bracts ending in sharp spines .

The herb grows in waste areas.

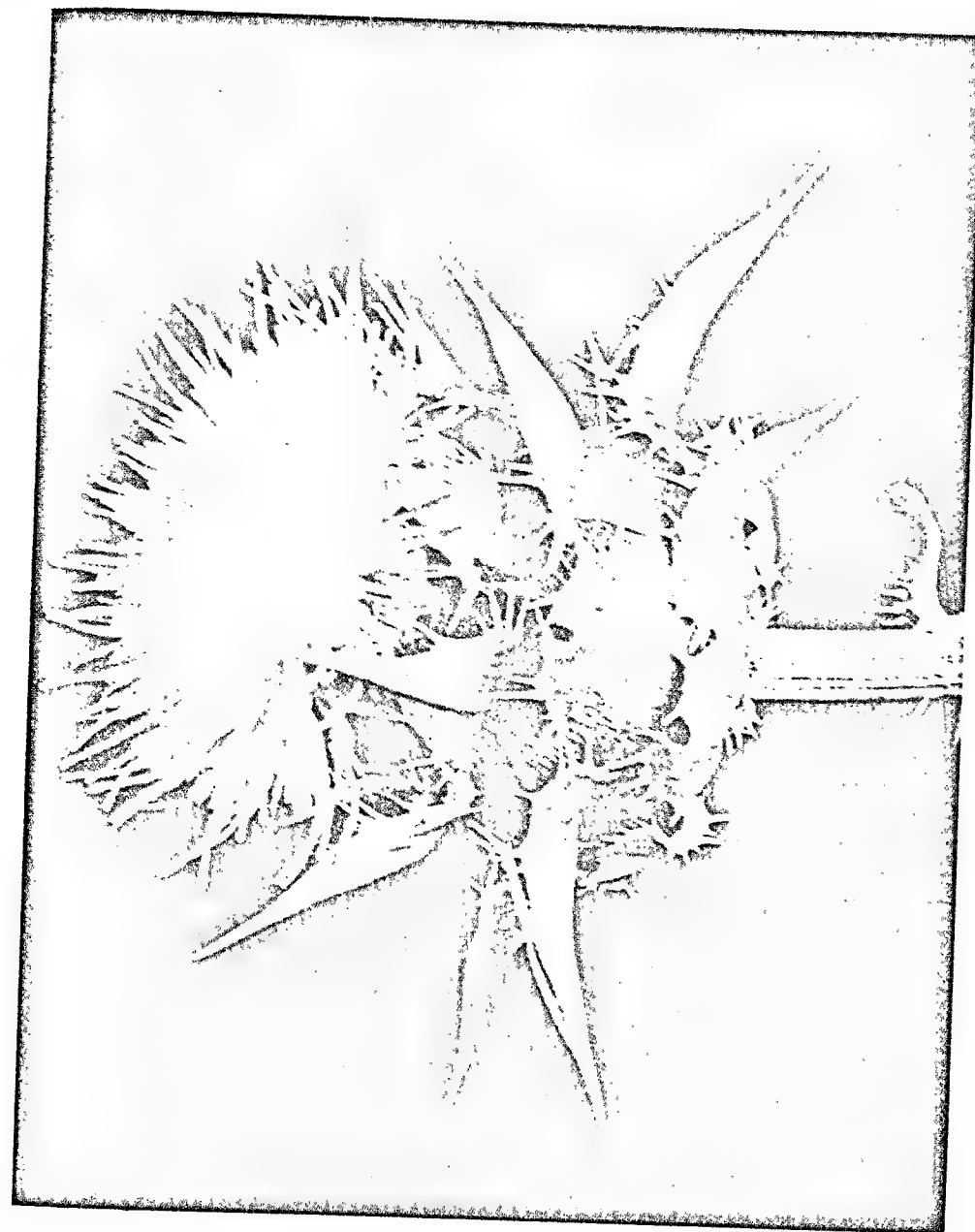
**Part Used :** Herb and fruits.

**Principle constituents :** Flavonoids silymarin and silybin, tannin, resin, bitter principles, starch, tyramine, histamine and fumaric acids.

**Uses :** The herb is antipyretic, emmenagogue, stimulant tonic and expectorant . It stimulates both the production and flow of bile . Seeds are hydragogue . It is used in haemorrhoids and hepatic infections . Silymarin and silybin have anti - hepatotoxic properties .

The plant is toxic to animals . Toxicity is due to the presence of nitrates which are converted to nitrites in the body which causes gastroenteritis leading to anoxia , difficult respiration , trembling , weakness , convulsions then death . The blood is dark red to coffee brown in dead animals .

**References :** 1, 2, 3, 4, 10, 14, 21, 22, 33, 38, 40.



( 318 ) SINAPIS ALBA LINN.

BRASSICA ALBA ROBENTH.

CRUCIFERAE

**English Name :** White mustard.

**Local Name :** خردل أبيض ، كبر أبيض  
حارة

**Description :** An annual hairy herb 60 - 100 cm long, either cultivated or occurs wildy in cultivated areas and waste places. Leaves very finely pubescent, pinnately cleft unequally toothed - lobed. Flower yellow.

**Part Used :** Seeds.

**Principle constituents :** Seeds contain the sulphur containing glycoside sinalbin which upon hydrolysis with the enzyme myrosin gives the volatile oil acrinyl isothiocyanate and the alkaloid sinapine acid sulphate. Seeds contain protein, fixed oil and mucilage.

**Uses :** Powdered seeds stimulate gastric mucosa and increase pancreatic secretions. Seeds paste is used as emetic in case of food poisoning. Externally it is rubifacient, antirheumatic and local irritant.

**References :** 1, 2, 3, 10, 12, 19, 22, 24, 25, 26, 32, 33, 40, 54.



( 319 ) SINAPIS ARVENSIS LINN.  
BRASSICA SINAPISTRUM BOISS.  
CRUCIFERAE

**English Name :** Field mustard, Wild mustard, Charlock.

**Local Name :** خردل بري، كبر عفریت

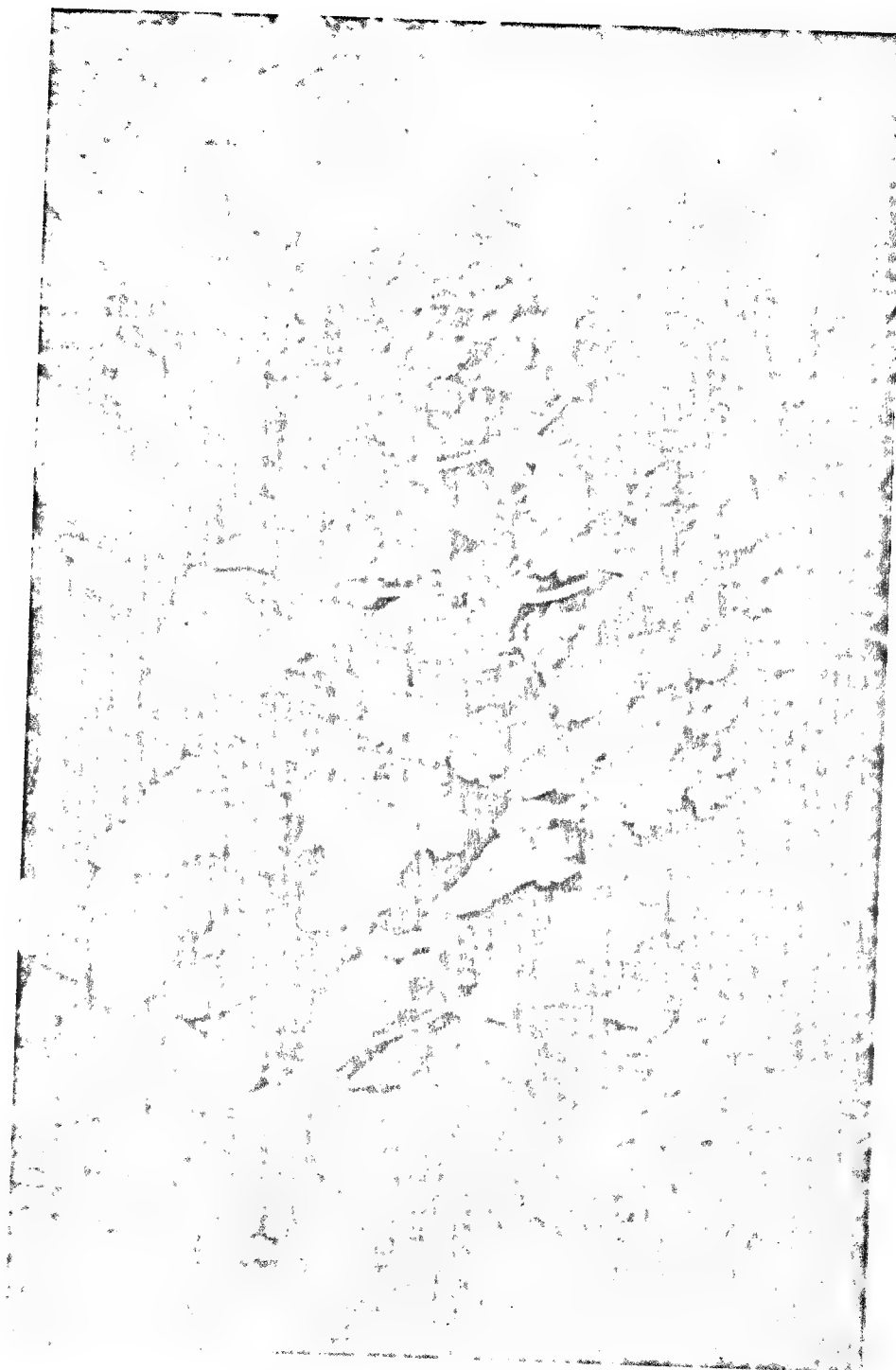
**Description :** An annual hairy herb 60 - 100 cm long, either cultivated or occurs wildy in cultivated areas and waste places. Leaves very finely pubescent, pinnately cleft unequally toothed - lobed. Flower yellow.

**Part Used :** Seeds.

**Principle constituents :** Seeds contain the same constituents of white mustard seeds but in small amounts.

**Uses :** Wild mustard seeds are used internally and externally as white mustard seeds ( Sinapis alba ).

**References :** 1, 2, 19, 25, 38, 40, 54.



( 320 ) SISYMBRIUM OFFICINALE SCOP.  
CRUCIFERAE

**English Name :** Hedge mustard.

**Local Name :** ساره ، فجّل الحمار  
فجّل الجمل

**Description :** An annual or biennial hairy herb 40 cm high. Leaves oppositely cleft almost to midrib. Flowers yellow, pink or white.

The plant grows in Benghazi and Fueihat.

**Part Used :** The whole plant.

**Principle constituents :** The plant contains different sulphur containing compounds.

The seeds contain cardenolide glycosides.

**Uses :** The plant is diuretic, stomachic, slightly cardiotonic and expectorant .

**References :** 1, 3, 21, 40, 43.



( 321 ) SOLANUM DULCAMARA LINN.  
SOLANACEAE

**English Name :** Bitter sweet, Woody nightshade, Felonwood.

**Local Name :** حلوة مرة ، حلو مر

**Description :** A perennial herb 60 - 150 cm high. The base of the stem is woody. The aerial parts sometimes trailing or scrambling. Leaves pubescent petiolate, ovate, sometimes bilobate at the base. Flower bright violet. Fruit berry, ovoid, red when ripe.

The plant occurs in Kufra and in the area of the borders with Sudan.

**Part Used :** Young branches ( 2 - 3 years old .

**Principle constituents:** The plant contains the toxic alkaloids solaceine and solaneine. The fruit contains some solanine. Stems are rich in saponins.

**Uses:** The branches are diuretic , expectorant and purify blood. A decoction is used to treat eczema, chronic bronchitis and asthma. In homeopathy, extract of the young branches is prescribed for chronic skin conditions and rheumatism.

**References :** 1, 3, 6, 10, 40.



( 322 ) SOLANUM LYCOPERSICUM LINN.  
LYCOPERSICUM ESCULENTUM MILL.  
SOLANACEAE

**English Name :** Tomato.

**Local Name :** طماطم ، بندورة

**Description :** Tomato plant is a well known annual plant cultivated for the production of the edible tomato Fruits .

**Part Used :** Fruits and the green plant.

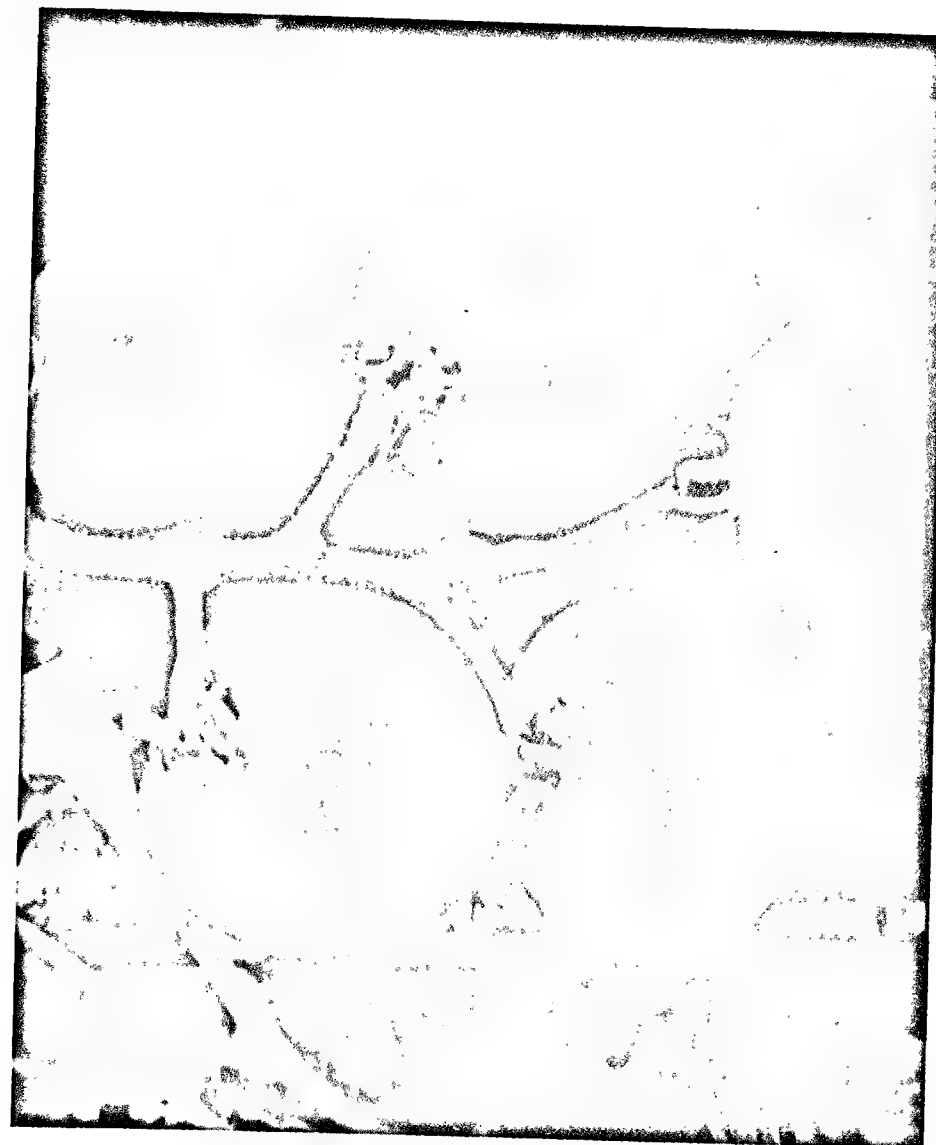
**Principle constituents :** The whole plant contains the alkaloid solanine while the fruit contains only traces. The bulb of the fruit is rich in saponins, it contains pigments lycopin and carotene, vitamin C, malic acid, oil, histamine, lipids, proteins, sugars and flavonoids.

The fruit contains an antibiotic known as tomatine. Stems contain rutin . Seeds contain a sulphur glycoside .

**Uses :** Tomato is a good source of vitamin C. Some people gets acute gastric sensitivity upon eating tomato due to the saponin, solanine and histamine contents. The tomato is not used medicinally but a tincture made from the green plant is used for headache and for rheumatism.

The glycoside of the seeds is used as a synergetic antioxidant for oils and fats .

**References :** 1, 3, 12, 21, 38, 39.





( 323 ) SOLANUM NIGRUM LINN.  
SOLANACEAE

**English Name :** Black night shade, Morella, Hound's berry.

**Local Name :** عنب الديب ، ديل الكلب

**Description :** An annual common roadsides weed, 30 - 60 cm high. Leaves alternate, ovate. Flower white in a small cluster on short stout, leafy stalk appearing near the tips of the branches. Fruit is round dull black berry.

**Part Used :** Ripe leaves and fruits.

**Principle constituents :** The plant contains toxic glyco - alkaloids solanine, solasonine, solasodine, solanidine, solamargine and demissine. It contains rutin, asparagin, solangustin, solanigrine, solanigridine and sterols.

**Uses :** The berries are diuretic, diaphoretic, antispasmodic, emmollient, emetic, used in case of diarrhea, fever and eye diseases. Leaf infusion is sedative, cholagogue analgesic, slightly narcotic, used in cases of insomnia, convulsions, dysentery, as enema to infants in abdominal upsets and externally for ulcers, wounds and itching. Burnt powdered roots rubbed on the back is good for lumbago. Paste of unripe berries expels ringworms.

**References :** 1, 2, 3, 10, 11, 12, 14, 21, 22, 25, 26, 28, 32, 33, 38, 49, 40, 46.



( 324 ) SOLANUM TUBEROSUM LINN.  
SOLANACEAE

**English Name :** Potato.

**Local Name :** بطاطا، بطاطس

**Description :** A succulent non - woody annual plant cultivated as vegetable crop for the production of the edible potato tubers.

**Part Used :** The mature tubers.

**Principle constituents :** The whole plant contains the principle alkaloid solanine and two secondary alkaloids, solanidine and solanthrine. The green fruit ( berry ) contains 1 % alkaloids while the tubers contain traces.

Tubers contain tannins, vitamins C, B 1, B 2 and B 6 pantothenic acid, organic acids, rutin, acetylcholine and large amount of starch.

**Uses :** The juice of the tubers is spasmolytic and gastric antiacid.

Tubers are edible.

**References :** 1, 3, 6, 10, 34, 40.



( 325 ) SONCHUS OLERACEUS LINN .

COMPOSITAE

**English Name :** Snow thistle, Common sonchus .

**Local Name :** جعضيض ، جلوين ، تيفاف ، تلفاف

**Description :** An annual glabrous erect plant, slightly branched with cymose - subumbellate tip. Leaves cuneate - pinnatifid, terminal leaf - lobe broad cordate and triangular, irregularly dentate. Leaf stalked, lower ones are small, few and teeth - like, upper leaves are narrow clasping with sharp auricles. Flowers pale yellow.

The plant grows. everywhere in Libya.

**Part Used :** The entire herb.

**Principle constituents :** Leaves contain vitamin C, sterols and caoutchouc.

**Uses :** The plant is cathartic, tonic, diuretic, hydragogue and antiscorbutic. A drink is used for stomach complaints, Applied externally for cutaneous eruptions and carbuncles . Leaf decoction is used in liver troubles , jaundice and as eye drops.

Root is vermicide. In India, dried leaf is used to treat opium addiction.

**References :** 1, 2, 3, 10, 14, 16, 21.



( 326 ) SORGHUM VULGARE    PERS.  
GRAMINEAE

**English Name :** African millet, Broom corn, Guinea corn, Great millet.

**Local Name :** سبول ، ذره صيفي ، ذره عويجه ،  
ذره رفيعه

**Description :** A cultivated annual tall grass upto 2 m high. Leaf blades are flat and long. Terminal panicle, compact and head - like. There are different varieties.

**Part Used :** Seeds.

**Principle constituents :** The plant contains the cyanogenic glycoside dhurrin  $C_{14}H_{17}O_7N$ . Leaves and stems contain hydrocyanic acid and oxalates but their amounts diminishes to nil when the seeds ripen. Seeds contain fixed oil. In some varieties they contain a red brown dye known as durasantalin  $C_{16}H_{12}O_5$ . The plant contains a quercetin monoglucoside, quercemetrin, a flavanol, a crystalline substance similar to pyrocatechol, pentosan and alkaloid hordenine.

**Uses :** Seeds are edible, diuretic, demulcent, aphrodisiac, much used in brewing, breast diseases and diarrhea. Stem pith is used against tubercular swellings. In south Africa the plant is used together with *Erigeron canadense* as a remedy for eczema.

Leaves are used as a green fodder only after the seeds ripen and its use should be avoided before that and also when wilted or frosted because of its toxicity to livestock due to accumulation of toxic levels of nitrates and hydrocyanic acid.

**References :** 1, 3, 21.



( 327 ) SPINACIA OLERACEA LINN.  
CHENOPODIACEAE

**English Name :** Spinach.

**Local Name :** سبانخ ، اسفاناخ

**Description :** An annual dioecious plant cultivated for its long sagitate leaves which are eaten as a vegetable. Stem erect and hollow. Flowers small and green. The staminate flowers occur in terminal leafless spikes and the pistillate ones are in clusters in the axils . The plant grows also wildy in cultivated areas.

**Part Used :** Leaves.

**Principle constituents :** The plant contains saponins particularly in the roots. Leaves are rich in minerals, calcium, iodine and iron, flavonoids, vitamins C and K, provitamin A and folic acid.

**Uses :** It shows hypoglycemic activity. As it contains iron and folic acid it is very good for the treatment of anemia. Spinach is good nutrient. It is not recommended to eat old cooked spinach because of the possible liberation of nitrites which may cause toxicity . Reheating the food promotes the formation of toxic nitrite salts .

**References :** 1, 3, 12, 21, 22, 24.



( 328 ) **STELLARIA MEDIA** LINN.  
**CARYOPHYLLACEAE**

**English Name :** Common chickweed.

**Local Name :** حشيشة الرمل ، قزازة  
حشيشة القزاز

**Description :** A low - growing annual herb. The stem is weak and hairy. Leaves are pointed and oval. Flowers are small with white petals.

The plant occurs in Benghazi area at Wadi Bin Ghadir and in Tripoli area in Tarhuna and Garian.

**Part Used :** The flowering plant.

**Principle constituents :** The plant contains saponins and an unknown alkaloid.

**Uses :** It is used as antirheumatic. The plant is employed as plaster for broken bones and swellings as it is supposed to be cooling and binding . In Spain it is used as vulnerary and astringent .

**References :** 1, 3, 18, 21, 33, 40.



( 329 ) TAMARIX APHYLLA LINN.  
TAMARICACEAE

**English Name :** Tamarisk, Athel, Tamarisk salt tree.

**Local Name :** عبل ، أتل

**Description :** A fine evergreen shade tree 15 m high, 2.5 m in girth, with very small scale like sheathing leaves . Flower pink small, sessile, feathery, borne in terminal panicles.

The tree grows in desert and alkali soil regions in Sabha, Um el Arais, Murzuk, Tajura, Kufra and Tripoli.

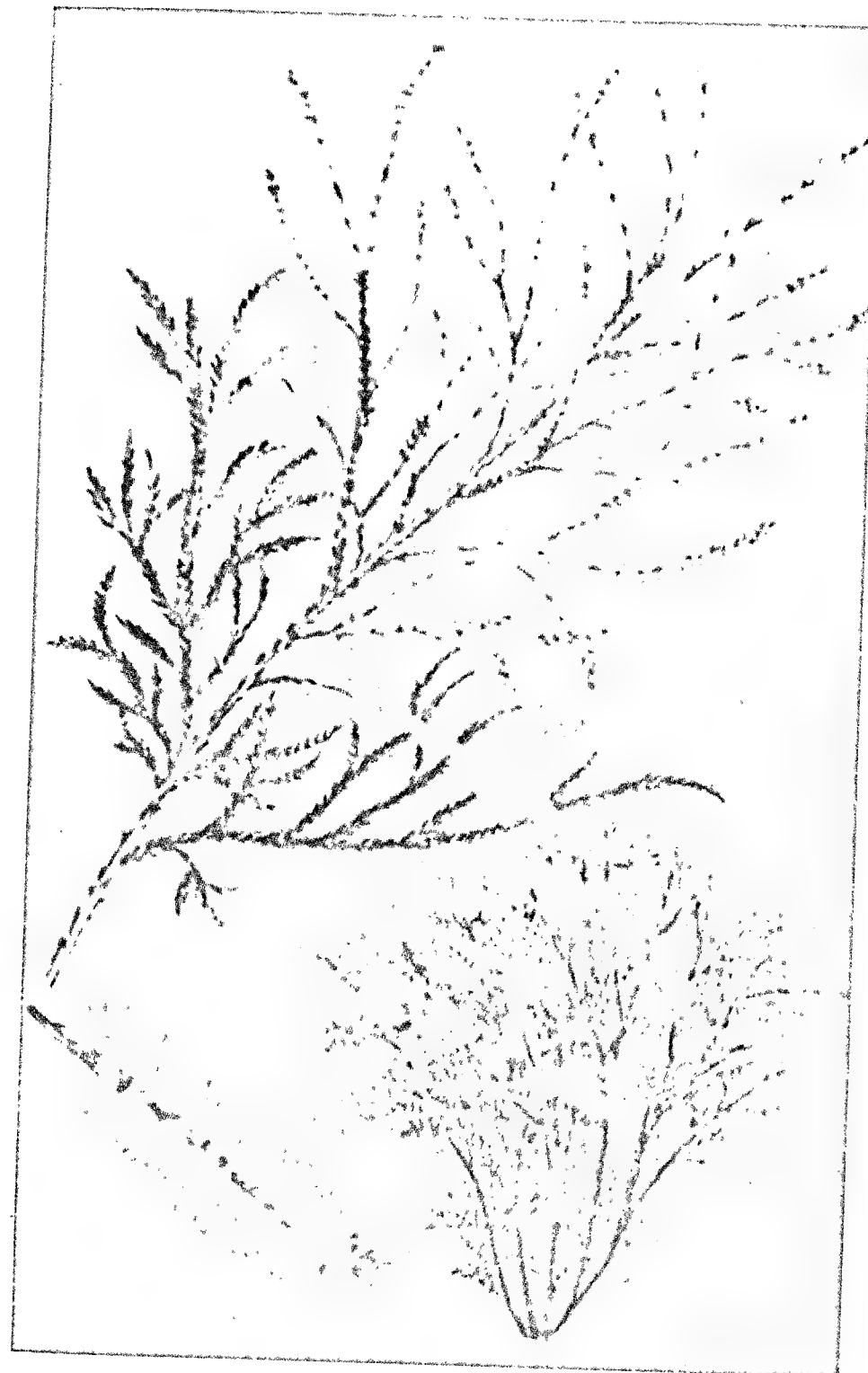
**Part Used :** Bark and galls.

**Principle constituents :** The tree contains about 10 % tannin in the bark, 1 % in the wood and 42 - 56 % in the galls.

**Uses :** Galls and bark is used in tanning and dyeing.

Wood is used as a remedy for syphilis and scaly skin conditions.

**References :** 1, 3, 10, 21.



( 330 ) TAMUS COMMUNIS LINN.  
DIOSCOREACEAE

**English Name :** Common black bryony, Mandrake.

**Local Name :** كرم بري

**Description :** A climbing, twining herb. Roots long, fleshy and tuberous. Flower dioecious, small and yellowish green. Leaves cordate sometimes obscurely 3 - lobed. Fruit berry and globular.

The plant grows in shady places in Wadi Wardama, Gubba and Wadi Sarak.

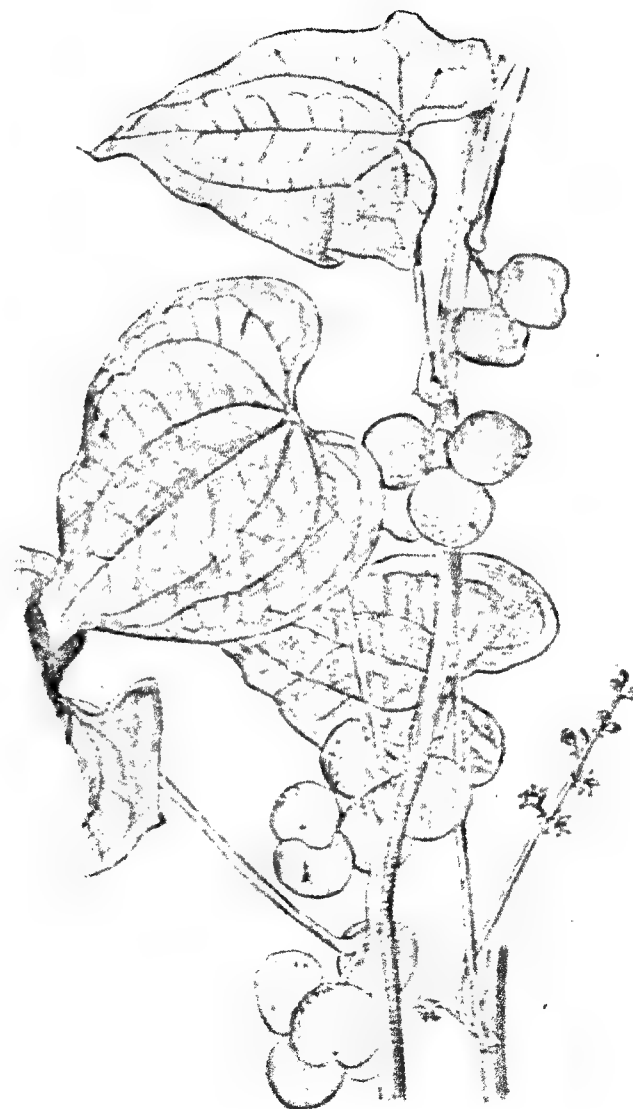
**Part Used :** Roots and berries .

**Principle constituents :** Berries contain diosogenin. Roots contain calcium oxalates , starch , substance similar to histamine and unkown alkaloid .

**Uses :** The plant is toxic , it causes irritant purgation and death .

Externally it is rubifacient and antirheumatic . Toxicity symptoms appear as purgation , burning mouth , blistering of the skin then death .

**References :** 1, 3, 19, 22, 25, 33, 38, 40.





( 331 ) TARAXACUM OFFICINALE      WEBER.  
COMPOSITAE

**English Name :** Dandelion, Blow - ball.

**Local Name :** هندباء بري ، خس بري ، حوزان  
حوزلان ، اسنان الأسد

**Description :** A well known perennial herb. Leaves deeply dentate or lobed form a basal rosette from which the hollow flower - stalk rises, crowned by a bright yellow flower - head.

The plant produces a white latex It was introduced into Libya .

**Part Used :** Latex from stems and roots , leaves and flower buds .

**Principle constituents :** Latex and roots contain bitter principle lactupicrine , tannin , taraxacin , taraxasterol , B amy-  
rine , flavonoids , vitamins B and C , caoutchouc and large  
amount of inulin about 25% .

**Uses :** Hepatic stimulant, stomachic, tonic, mild laxative,  
diuretic and hypoglycemic. It is used to treat chronic liver diseases  
without any side effects. It prevents liver cirrhosis.

Powdered roots are used as coffee substitute or coffee adul-  
trant like chicory (Cichorium intybus ).

**References :** 1, 3, 12, 21, 22, 24, 25, 26, 38, 39, 40.



( 332 ) TAXUS BACCATA LINN.  
TAXACEAE

**English Name :** Golden yew, English yew.

**Local Name :** رجل الجراد

**Description :** An evergreen tree. The trunk ( sometimes multiple ) supports a large crown of spreading branches. Leaves long, narrow, dark shiny green. Male and female flowers being produced on different trees. The seed is ovoid with a red fleshy aril.

The plant was introduced into Libya.

**Part Used :** Bark, leaves and seeds .

**Principle constituents :** Leaves contain the alkaloids ephedrine , taxinine , taxine which is unstable and milossine which is very toxic , taxicatin glucoside  $C_{14}H_{70}O_8$  , colouring matter rhodoxanthin , flavonoid sciadopitisine  $C_{33}H_{34}O_{10} \cdot 5 H_2O$  m. p. 294 - 6 C° and different pigments .

**Uses :** The plant raises blood pressure and survival after poisoning is uncommon . Taxine has digitalin like action . Leaves can be used as antirheumatic, abortive , emmenagogue and in cases of urinary infections and epilepsy but due to the severe toxicity the plant is not used . The leaf is more toxic than the fruit and the male tree is more toxic than the female .

**References :** 1, 3, 10, 12, 19, 21, 22, 25, 26, 28, 32, 33, 40.



( 333 ) **TECOMA STANS**    **JUSS.**  
**BIGNONIACEAE**

**English Name :** Tecoma .

**Local Name :** تيكوما

**Description :** One of the most commonly cultivated ornamental shrubs in Libya . A straggling shrub 4 m. high . Foliage glabrous , bright coloured compound leaves . Flower yellow , trumpet - like , in terminal raceme . Fruit is a long narrow pod .

**Part Used :** Leaves .

**Principle constituents :** Leaves contain the antibiotic laphacol and the alkaloids tecomine and reostanine .

**Uses :** Laphacol is active against Gram + ve and acid fast bacteria and against fungi . The alkaloids have hypoglycemic activity and are considered as oral insulin substitute by Mexican natives .

**References :** 1 , 3 , 21 , 22 , 33 .



( 334 ) TEUCRIUM POLIUM LINN.  
LABIATAE

**English Name :** Hulwort, Cat thyme.

**Local Name :** جمدة ، مسك الجن  
حشيشة الريح

**Description :** An aromatic perennial plant 30 - 60 cm high with a woody base from which the stem branches. Leaves sessile oblong or linear obtuse, crenate with a flat or revolute margin.

The plant occurs in Tripoli, Benghazi and Fezzan.

**Part Used :** Leaves.

**Principle constituents :** Unknown alkaloid and volatile oil.

**Uses :** It is known to be antidiabetic, antiintestinal inflammation and antimalarial. It is also bitter tonic.

The plant liquid extract is used in the treatment of abscesses .

**References :** 1, 2, 3, 7, 14, 21, 22, 33, 39.



( 335 ) THAPSIA GARGANICA LINN.  
UMBELLIFERAE

**English Name :** Drias plant, Smooth thapsia.

**Local Name :** درياس ، بنتون

**Description :** A tall herb very green with a strong succulent central shoot. Leaves coarse, funnelshaped. Flowers yellow or dirty white. The plant was doubtfully identified by some authors as being the Silphium of the ancients in Libya.

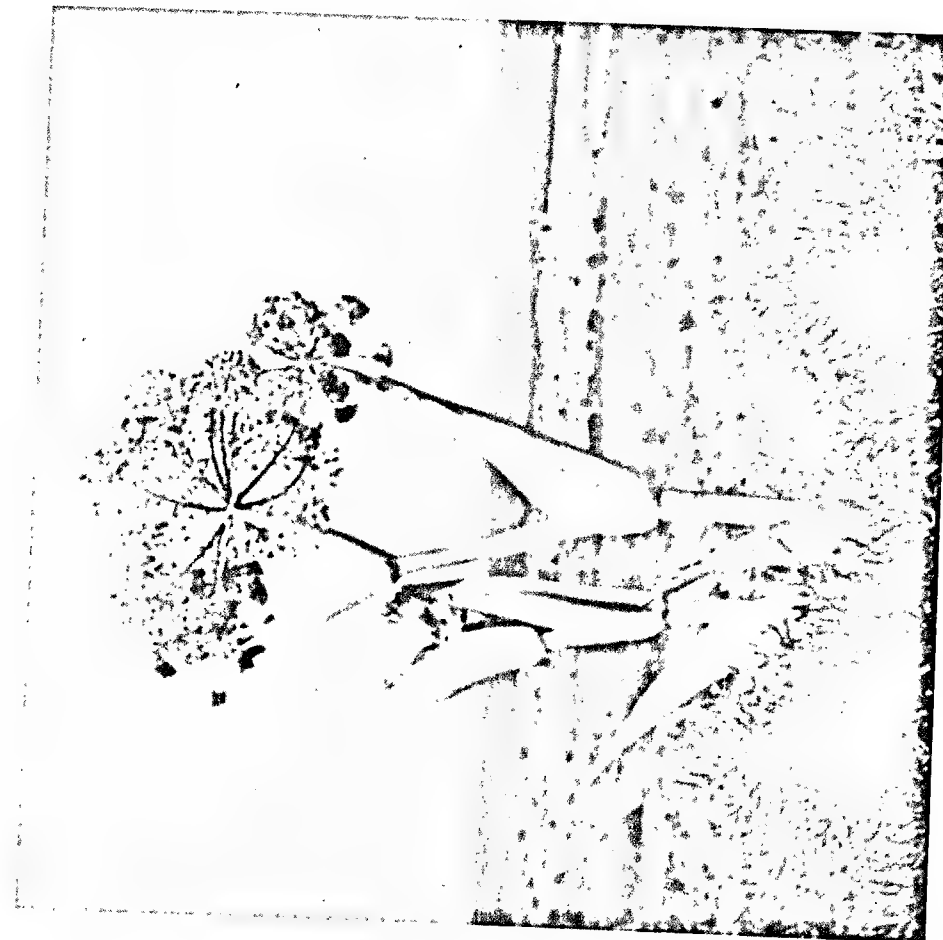
The plant occurs in Banghazi, Derna and Mersa susa. Its occurrence in Tripoli is doubtful.

**Part Used :** Root bark.

**Principle constituents :** The plant contains volatile oil and resins.

**Uses :** The bark is used as antirheumatic, in the form of cataplasma it is used in cases of swellings.

**References :** 1, 3, 38.



( 336 ) THYMUS VULGARIS LINN.  
LABIATAE

**English Name :** Thyme, Common thyme.

**Local Name :** زعتر ، صعتر ، ثلمه ، دوس ، تومس

**Description:** A gray dwarf shrub rarely exceeds 40 cm in height. Stem quadrangular erect, woody and much branched. Leaves small oval, rolled margins and downy undersurface flowers small pink, arranged in a corymb. The plant has a strong characteristic smell. It grows wild in Garian, Tarhuna and Tripoli.

**Part Used :** Leaves and flowering tops.

**Principle constituents :** Yellowish volatile oil containing thymol, carvacrol, cymene, pinene, borneol, linalool and bornyl acetate, tannin, bitter principle, saponin, sugars, flavone, caffeic acid and ursolic acid which is the isomer of oleanolic acid. Leaves contain urease.

**Uses :** Digestive, stimulant, carminative intestinal antiseptic and as condiment. The oil is used in mouth washes and in the treatment of whooping cough and bronchitis. Thymus is antiseptic, parasiticide, antifungal, deodorant, weak anaesthetic and anthelmintic especially against hook - worms ( ascaris and oxyures ). Saponins have haemolytic activity.

**References :** 1, 3, 10, 11, 12, 18, 21, 22, 24, 25, 37, 38, 39, 40, 54.



( 337 ) **TILIA PLATYPHYLLOS**      **SCOP.**  
**TILIACEAE**

**English Name :** Large - leaved linden, Large - leaved lime.

**Local Name :** زيزفون

**Description :** A straight trunked tree about 50 m high, young twigs, tomentose, leaves large with a downy undersurface and conspicuous veins. Flowers in groups of 3 and larger than the other species.

The tree was introduced into Sidi El Misri .

**Part Used :** The inflorescence with bracts and bark.

**Principle constituents :** Volatile oil containing farnesol, flavonoid glycoside and mucilage.

The bark contains polyphenols and coumarines.

**Uses :** The inflorescence is diaphoretic, expectorant, emollient and antispasmodic. It is used as a drink like tea. It is good for the respiratory system. The bark and the soft wood as a decoction is antirheumatic.

**References :** 1, 3, 22, 38, 40.



( 338 ) TRIBULUS TERRESTRIS LINN.

ZYGOPHYLLACEAE

**English Name :** Bur nut, Malta cross, Small caltrops.

**Local Name :** قطرب ، شوكريز ، خرشوم النعجة  
دريسه ، دقن الشيخ ، ضرس العجوز

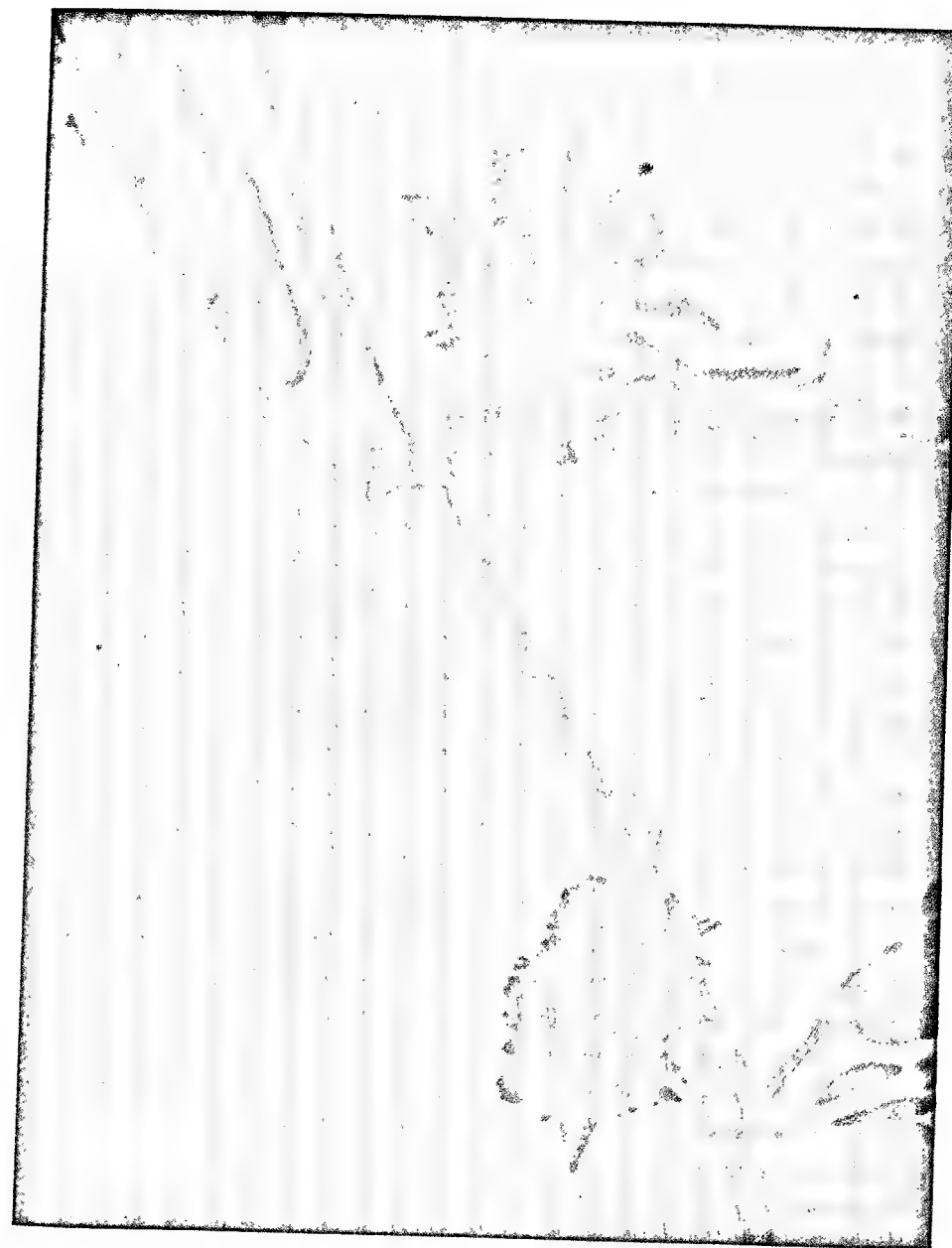
**Description :** An annual plant 30 - 70 cm high, grows as weed in the fields. Stem erect or ascending. Leaves imparipinnate, leaflets oblong - ovate to oblong - linear . Flowers axillary yellow in colour .

**Part Used :** Fruits and roots.

**Principle constituents :** Alkaloids , fixed oil , volatile oil , saponin , diosogenin , ruscogenin and resins .

**Uses :** Fruits are diuretic , tonic , aphrodisiac and astringent . It is used in urinary disorders , heart diseases , arthritis and against urine suppression . The plant is toxic , causes swelling of the head and ears .

**References :** 1, 3, 7, 10, 12, 14, 17, 20, 21, 22, 25, 32, 33.





( 339 ) TRIFOLIUM PRATENSE LINN.

LEGUMINOSAE

**English Name :** Red clover, Purple wort, Meadow clover.

**Local Name :** رطبة ، برسيم أحمر

**Description :** A perennial erect or spreading plant slightly hairy with elliptic - obovate leaflets . Flowers pink - purple in dense globular head . Calyx hairy with unequal teeth , throughout glabrous .

The plant is cultivated as a forage crop.

**Part Used :** Dried flowers.

**Principle constituents :** Flowers contain salicylic acid , P. coumaric acid , isorhminetin  $C_{16}H_{12}O_7$  m. p. 295 C°, trifoliantol glycoside , volatile oil , trifolin  $C_{22}H_{22}O_{11}$  m. p. 260 , trifolitins  $C_{16}H_{10}O_6$  m. p. 275 C°, isotrifolin  $C_{22}H_{22}O_7$  m. p. 251 c°, quercetin , resins , rhamnose sugar , tannin , gencelins , ramnetin , saponin , fragrant volatile oil and the estrogenic compound coumestrol .

**Uses:** Expectorant, diuretic, antispasmodic and sedative in cases of whooping cough and bronchitis. Externally it is used as poultice for sores, burns and as eye drops in case of black spots in the vision. It causes trifoliosis dermatitis due to photosensitization.

**References :** 1, 3, 10, 12, 14, 21, 22, 53, 57.



**(340) TRIGONELLA FOENUM-GRAECUM LINN.**

**LEGUMINOSAE**

**English Name :** Fenugreek.

**Local Name :** حلبه ، بيسبه

**Description :** An annual herb 50 - 70 cm high. Pubescent, stems erect, stipules triangular - lanceolate acuminate, entire, leaflets obovate to oblong dentate. Flowers small and white.

The plant is cultivated for the production of the seeds.

**Part Used :** Seeds and overground parts.

**Principle constituents :** Mucilage, the alkaloids, choline and trigonelline, saponins, nicotinic acid, diosogenin, prolamin, fixed oil , volatile oil and protein .

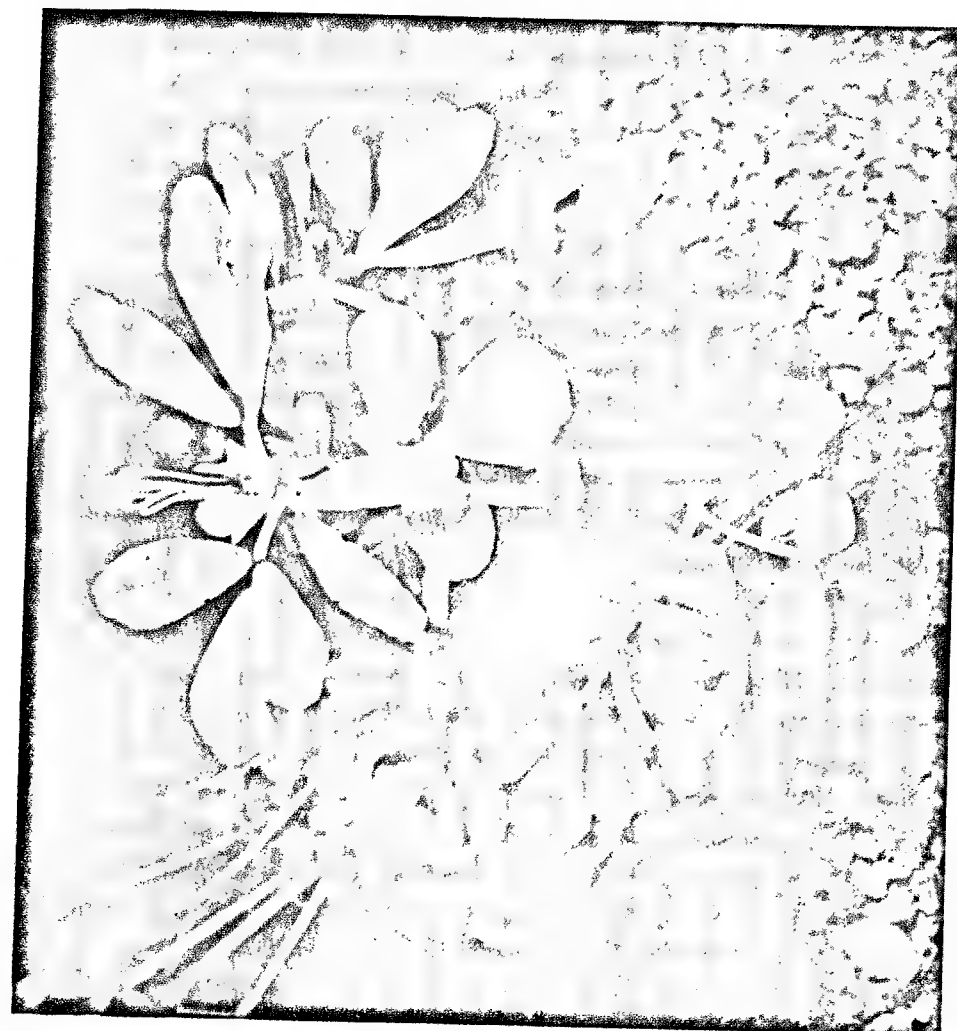
It contains also minerals such as calcium , phosphorus and iron and the vitamins C and D .

**Uses :** Tonic, emollient, lactagogue, nutrient, stomachic, condiment, aphrodisiac, anabolic and insect repellent.

Diosogenin is used as a precursor for the preparation of cortisone and sex hormones .

Powdered seeds are occasionally used as spice and added to carry powder.

**References :** 1, 3, 12, 14, 17, 21, 22, 24, 25, 26, 27, 28, 32, 33, 38, 40, 54.



( 341 ) ULMUS CAMPESTRIS LINN.  
ULMACEAE

**English Name :** Common Elm.

**Local Name :** غرغار ، غرغاج

**Description :** A tall tree with rough bark, sucker at the base of the trunk. Leaves deciduous alternate, pleated. Flowers in dense tufts of red stamens. Fruit is a green disc.

The tree occurs in Shahat and Wadi Derna.

**Part Used :** Bark and young branches.

**Principle constituents :** Bark contains much tannin, mucilage and bitter principles.

**Uses :** Astringent used in cases of diarrhea . Externally it is used for the treatment of wounds and ulcers . The wood is used in making furniture .

**References :** 1, 3, 38, 40.



( 342 ) URGINEA MARITIMA LINN.

LILIACEAE

**English Name :** Squill.

**Local Name :** فرعون ، عنصل ، بصل العنصل

**Description :** An autumn flowering bulbous plant about 40 - 50 cm high. Leaves 10 - 20 fleshy and glaucous, strap - shaped about 30 - 45 cm long, wide above the middle. Flower whitish or pink borne on a stalk 30 - 90 cm long. Bulb 15 - 20 cm in diameter.

The plant occurs along the north coast of Libya.

**Part Used :** The bulbs.

**Principle constituents :** Bulbs contain the two cardiac glycosides scillaren A which upon hydrolysis gives glucose, rhamnose and scillaridin A, and the glycoside scillaren B which gives also the same sugar and the genin scillaridin B . The plant contains several flavonoids , sinistrin , a carbohydrate resembling inulin , mucilage and calcium oxalate .

**Uses:** The plant is very toxic and never used in folkore medicine but used by pharmaceutical firms for the production of the cardiac glycosides.

The glycosides are used for heart diseases.

**References :** 1, 2, 3, 11, 12, 22, 25, 26, 37, 38, 40, 54.



( 343 ) URTICA URENS LINN.  
URTICACEAE

**English Name :** Stinging nettle, Small nettle.

**Local Name :** حريق ، شعر العجوز

**Description :** An annual common roadside small weed 30 - 50 cm high. Stem branching from the base. Leaves acutely incised - dentate. Male spikes simple, usually shorter than petiole, less numerous than female.

**Part Used :** The whole plant.

**Principle constituents :** It contains histaminic compounds , formic acid , tannin , silicon , potassium salts , glucosinoides , iron , 5 - hydroxytryptamine and vitamins A. and C .

**Uses :** It is haemostatic, antianemic, antidiabetic, diuretic and lactagogue. Leaves as infusion or decoction is used externally for the treatment of eczema, ulcers and rheumatism. It promotes hair growth. The powder is snuffed to stop nose - bleeding. The plant is hardly used because it is very harmful and causes dermatitis.

**References :** 1, 2, 3, 4, 10, 33, 40, 43.



( 344 ) VERBASCUM THAPSIFORME    SCHRAD .  
VERBASCUM THAPSUS    LINN .  
SCROFULARIACEAE

**English Name :** Mullein, Shepherd's club, White mullein.

**Local Name :** بزير ، لبيدة

**Description :** A woolly biennial plant 70 - 120 cm high. Stem is erect having large lanceolate leaves covered with yellowish hairs.

Flowers are yellow 2 - 2.5 cm in diameter in a dense inflorescence.

The plant is cultivated in Tripoli.

**Part Used :** Flowers deprived of the calyx and leaves .

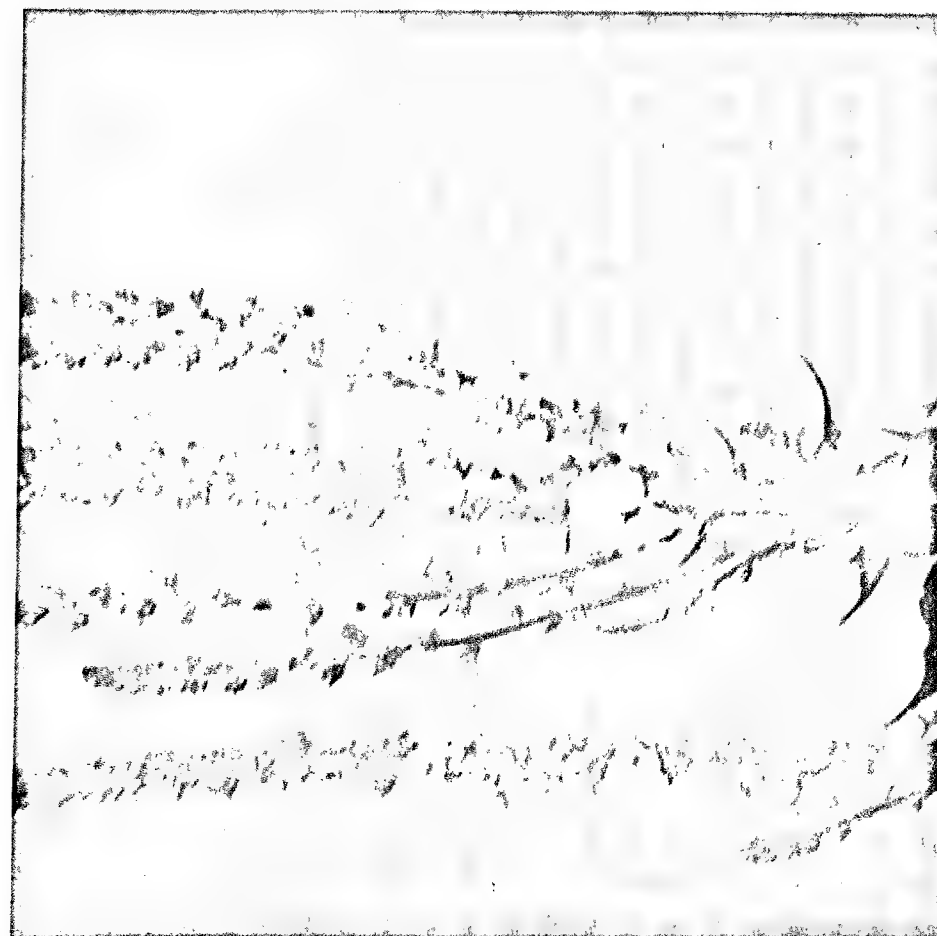
**Principle constituents :** Mucilage, saponin, inverted sugar, stachyose and verbacose sugars, tannin, colouring compounds, xanthophyl and carotene .

It contains aucuboside , verbascoside , alpha crocetin and mucilage .

**Uses :** Emollient , expectorant and diaphoretic . The flower is a component of many expectorant syrups and pharmaceutical preparations used in pulmonary diseases . It is used as gargle and in the treatment of asthma . Warmed and mixed with oil , is applied externally to inflamed parts .

Seeds are known to be aphrodisiac and narcotic.

**References :** 1, 3, 12, 18, 21, 37, 38, 39, 40, 54.



( 345 ) VERBENA OFFICINALIS LINN.  
VERBENACEAE

**English Name :** Pigeon's grass, Vervain, Herb of the cross.

**Local Name :** رجل الحمام ، رعى الحمام

**Description :** A perennial herb 30 - 90 cm high. Stem rigid quadrangular. Leaves lanceolate, opposite. Flowers small, pale, purple arranged in a narrow elongate spike.

The herb grows in Tripoli and Benghazi areas .

**Part Used :** The whole flowering plant.

**Principle constituents:** Glycosides verbenalin  $C_{17}H_{25}O_{15}$  m. p. 180 - 3 C° and berbenin , tannin , mucilage , bitter principle and the enzymes emulsin and invertin . Roots contain stachyose .

**Uses :** The herb is diuretic, lactagogue, emmenagogue, diaphoretic, antidiarrheal, antipyretic, aphrodisiac, antineuralgic and antirheumatic. It is used in cases of fever, anemia, dropsy, chronic eczema and wounds.

**References :** 1, 3, 7, 10, 12, 21, 22, 38, 39, 40.



( 346 ) VICIA FABA LINN.  
LEGUMINOSAE

**English Name :** Beans, Broad beans, Horse beans, Tick bean.

**Local Name :** فول ، فول مصري

**Description :** An annual cultivated plant 80 - 100 cm high, erect and glabrous stem. Flower dull - white with purple blotchs. Fruit is a large pod containing 3 - 6 broad flat seeds which become brown when dry .

**Part Used :** Beans.

**Principle constituents :** Beans contain proteins, glucosides vicine and convicine , fumaric acid and betulin m. p. 256 C°. The hull contains glyceric acid . Leaves and stems contain rutin and fisetin . Roots contain 5 hydroxyuracil and kaempferol m. p. 282 C° .

**Uses :** Beans are used as food for human beings, horses and other animals.

Favism is the name of vicia faba toxicity characterized by having the symptoms of allergic reactions resulting as acute haemolytic anemia usually among male children, dizzines, malaise, gastro - intestinal upset with increased excretion of urobilin, jaundice and weakness. Inhalation of pollen grains also causes favism.

**References :** 1, 3, 10, 12, 21, 30.





( 347 ) VIOLA ODORATA LINN.  
VIOLACEAE

**English Name :** Violet , Sweet violet.

**Local Name :** بنفسج

**Description :** A perennial ornamental plant 10 - 20 cm high, Having a central stem and radiating stolons. Leaves cordate, pubescent. Flowers sweet - smelling, violet, pink or white.

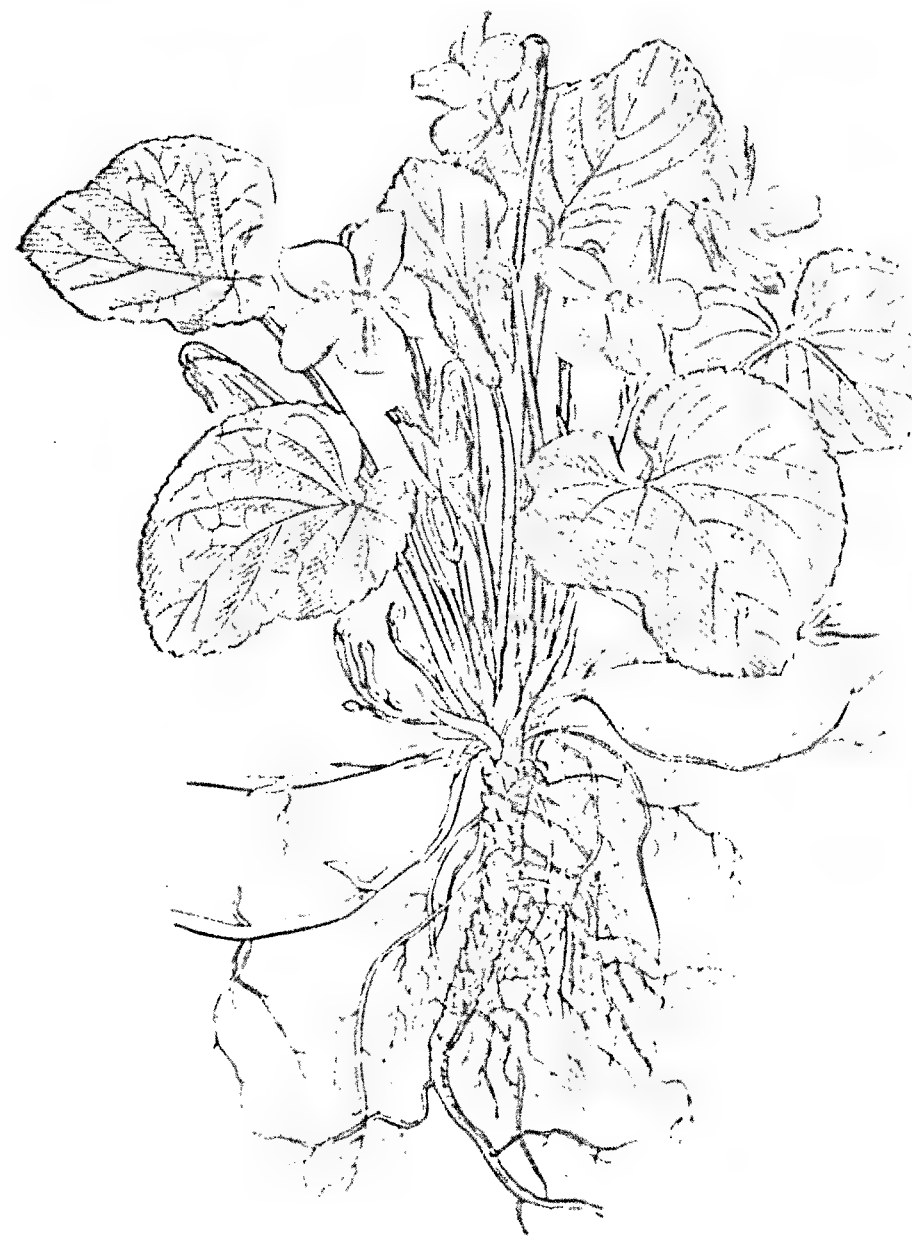
**Part Used :** The whole plant.

**Principle constituents :** The roots contain the glucoside violin which is called iridin m. p. 208 C°, saponin , 2 - nitropropionic acid and the glycoside gaultherin which upon hydrolysis gives methyl salicylic acid ester . Seeds contain salicylic acid . myrosin and a glucoside . The flowers contain volatile oil containing alpha and beta irone and alpha and beta ionone . Roots contain traces of the alkaloid odoratine and saponins .

**Uses :** Leaves are emetic, purgative, expectorant, emollient, diaphoretic and used as dressing or plaster for burns. In South Africa the plant is used as anticancer by chewing the leaves. The roots are used as expectorant and once were a substitute for Ipecacunha roots .

The plant is used as remedy for urinary stones. Flowers are widely used in perfumery. Odoratine reduces blood pressure.

**References :** 1, 3, 10, 12, 21, 40, 43.



( 348 ) VIOLA TRICOLOR LINN.  
VIOLACEAE

**English Name :** Pansy, Look up and kiss me, Heartsease.

**Local Name :** بانسيه ، زهرة الثالوث البري

**Description :** A very variable annual ornamental plant 10 - 20 cm high. Flowers yellow, white, violet - striped. Leaves dentate or mostly lanceolate.

**Part Used :** The flowering plant.

**Principle constituents :** The plant contains saponins, salicylates, flavonoids, violaqueretin glycoside and rutin. The flower contains violanin, coumarin, anthocyanin and rutin. The plant contains also methyl salicylates and the alkaloid violine.

**Uses:** The plant is emetic, diuretic, diaphoretic, emollient, expectorant and mild laxative . It is used in the treatment of heart diseases and urinary troubles as it increases the excretion of chlorides . Externally it is used in the treatment of certain skin diseases .

**References :** 1, 2, 3, 10, 21, 22, 25, 33, 40.



( 349 ) VITEX AGNUS - CASTUS LINN.  
VERBENACEAE

**English Name :** Chaste tree, Hemp tree, Monk's pepper tree.

**Local Name :** شجرة مريم ، كف مريم  
ام زيرة

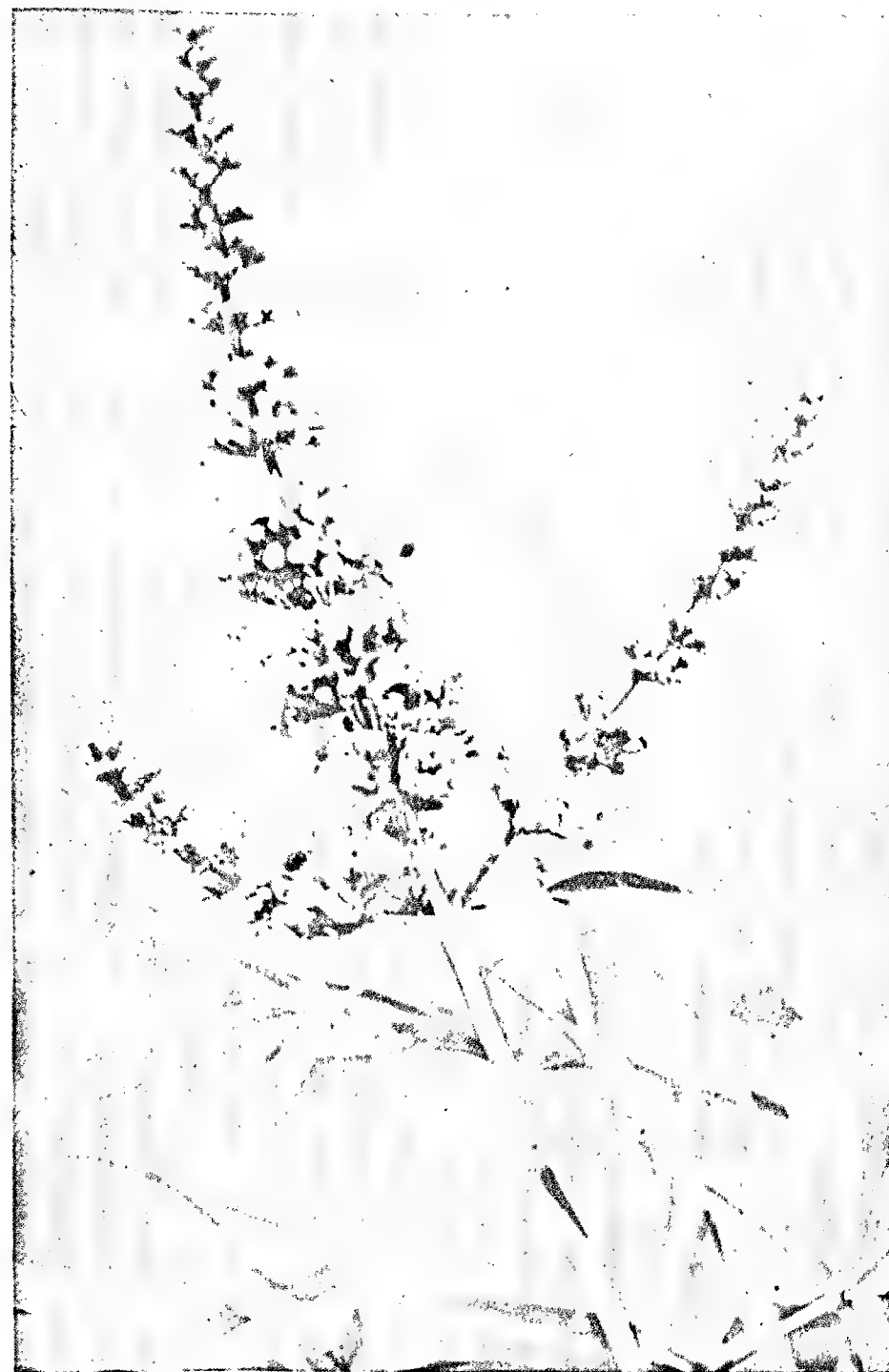
**Description :** An ornamental shrub 1.2 - 5 m high with palmately long petioled leaves. Leaflets white 5 - 7 lanceolate. Inflorescence spike, terminal, flowers pale lilac in colour. Fruit fleshy red to black in colour.

**Part Used :** Flowering tops, fruits, seeds and leaves.

**Principle constituents :** Several fatty acids , alpha - amy-  
rin , beta - sitosterol , campesterol , stigmasterol and volatile oil  
containing cineole , citronellol and nerolidol . It contains flavo-  
noids mainly casticin .

**Uses :** Sedative, antispasmodic, digestive, used in ophthal-  
mic diseases and stomach ache. Flowers are used in perfumery.

**References :** 1, 3, 12, 14, 21, 22, 30, 32, 33, 39.



( 350 ) VITIS VINIFERA LINN .

AMPELIDACEAE

**English Name :** Grape.

**Local Name :** عنب ، كرم

**Description :** The well known vigorous climber plant cultivated for the production of its delicious grape fruits .

**Part Used :** Fruits.

**Principle constituents :** Tartaric and malic acids, sugars dextrose and fructose , pectin , tannin , red resin and oenoside glycoside . The juice contains xanthophyl , carotene , fixed oil , minerals and vitamins A , B 1 , B 2 , and C .

**Uses :** Fruits are laxative, diuretic and tonic. Leaves are astringent. Fruits are recommended in cases of cardiorenal infections and when reducing obesity.

The juice of the unripe fruits is astringent and used in throat inflammations.

Sap of young branches is a remedy for skin diseases .

**References :** 1, 3, 12, 21, 24, 26, 40, 43.



( 351 ) WITHANIA SOMNIFERA DUNAL .  
SOLANACEAE

**English Name :** Withania.

**Local Name :** فول الكلب ، زفوة ، مرجان ،  
سم فراخ

**Description :** An erect woolly shrub 60 - 200 cm high. Much branched. Flowers green to yellow in the axils of leaves. Fruits red berries become yellow - brown on drying, size of a pea, enclosed by brown papery inflated calyx .

The plant grows in Fezzan, Murzuk, Benghazi, Derna and Tajura in Tripoli.

**Part Used :** Roots, leaves and fruits.

**Principle constituents :** The plant contains the alkaloids somnine, somniferine, somniferinine, withanine, withananine, withanainine, nicotine, isopelletierine, cuscohygrine, anahygrine, and anaferine, resin, fat, monohydric alcohols withaniol and somninal, volatile oil, colouring matters, sugars, withanic acid, hentriacontane and the coumarin scopoletin. The plant contains an antibiotic withaferin and phytosterols.

**Uses :** The plant is tonic, aphrodisiac, nerve sedative, hypnotic, and diuretic. Withaferin has a broad spectrum action against bacteria and viruses. Roots are sexual stimulant, produce abortion and in small doses they tone up the uterus in women who habitually miscarry. Bark infusion is used in case of asthma. Leaf juice is used in conjunctivitis, nausea, rheumatism and externally for ulcers and swellings . Somniferine is hypnotic . The plant has milk - clotting properties .

**References :** 1, 2, 4, 7, 10, 12, 20, 21, 26, 32, 33, 39.



( 352 ) ZEA MAYS LINN .

## GRAMINEAE

**English Name :** Maize, Corn .

**Local Name :** سبول ، ذره

**Description :** Corn plant is a well known annual field crop cultivated throughout Libya.

**Part Used :** Grain, starch and flour, corn silk, cobs and oil obtained from the embryo of the grain.

**Principle constituents :** The coarse flour and the oil contain indispensable amino acids, vitamins, allantoin and hordenine alkaloid. Cobs contain adipic acid. « corn silk » which is the style and stigma of the pistil , contains maizenic acid , fixed oil , resin , sugar , mucilage , salts and tannin .

**Uses :** Flour is used for making bread. Oil is edible and used as solvent for irradiated ergosterol. Corn silk is used in the treatment of genito - urinary diseases and acute bladder infections. It is also diuretic. Corn cobs are diuretic.

**References :** 1, 3, 10, 12, 16, 21, 26, 38, 40.



## REFERENCES

- 1 — A PRELIMINARY CHECK LIST OF LIBYAN FLORA  
H. G. Keith 1965
- 2 — STUDENT'S FLORA OF EGYPT  
Vivi Tackholm 1974
- 3 — ILLUSTRATED POLYGLOTTIC DICTIONARY OF  
PLANT NAMES  
A. K. Bedevian 1936
- 4 — COMMON WEEDS OF EGYPT  
Loutfy Poulos and N. El - Hadidi 1967
- 5 — MANUAL OF CULTIVATED PLANTS  
L. H. Bailey
- 6 — STANDARD CYCLOPEDIA OF HORTICULTURE  
L. H. Baily 1963
- 7 — FLORA OF SAUDI ARABIA  
A. M. Migahid 1978
- 8 — WYMAN'S GARDENING ENCYCLOPEDIA  
Donald Wyman 1971
- 9 — MEDICINAL PLANTS  
S. K. Jain
- 10 — MEDICINAL AND POISONOUS PLANTS OF  
THOUTHERN AND EASTERN AFRICA  
J. M. Watt and M. G. Brandwijk 1962

- 11 — MEDICINAL PLANTS OF THE ARID ZONES(UNESCO ).  
Unesco publications 1960
- 12 — CHOPRA'S INDIGENOUS DRUGS OF INDIA  
Chopra , Handa and Kapur 1958
- 13 — MEDICINAL PLANTS OF INDIA VOL . I  
Indian Council of Medicinal Research, New Delhi  
1976
- 14 — MEDICINAL PLANTS IN KUWAIT  
Riad Alami and Asad Macksad
- 15 — HANDBOOK ON PHILIPPINE MEDICINAL PLANTS  
L. De Padua, G. Lugod and  
J. Pancho 1978
- 16 — NEW ZEALAND MEDICINAL PLANTS  
S. G. Brooker and R. C. Cooper 1961
- 17 — MEDICINAL PLANTS IN THAILAND  
Thai National Documentation Centre Bangkok  
1980
- 18 — HERBS AND WEEDS  
( A USEFUL BOOKLET ON MEDICINAL PLANTS )  
Father J. Kunzle 1971
- 19 — POISONOUS PLANTS AND FUNGI  
P. North 1977
- 20 — HAMDARD PHARMACOPOEIA OF EASTERN MEDICINE  
Hakim Mohammed Said 1970
- 21 — GLOSSARY OF INDIAN MEDICINAL PLANTS  
R. N. Chopra, S. L. Nayar  
and I. C. Chopra 1956
- 22 — MEDICAL BOTANY ( PLANTS AFFECTING MAN'S HEALTH )  
W. Lewis and F. E. Lewis 1977
- 23 — ECONOMIC BOTANY  
A. F. Hill 1952
- 24 — PLANTS CONSUMED BY MAN  
B. Brouk 1975
- 25 — PHARMACOGNOSY 11 TH. ED.  
Trease and Evans 1978
- 26 — PHARMACOGNOSY 7 TH. ED.  
V. E. Tyler , L. R. Brady and  
J. E. Roberts 1976
- 27 — THE ALKALOIDS  
R. H. F. Manske and  
H. L. Holmes 1950 - 1975
- 28 — THE PLANT ALKALOIDS  
E. Henry 1949
- 29 — FOURTH CONGRESS OF ARAB PHARMACISTS UNION  
( Abstracts ) Cairo 1974
- 30 — SIXTEENTH EGYPTIAN CONFERENCE OF PHARMACEUTICAL SCIENCE  
( Abstracts ) Cairo 1980
- 31 — IMPORTANT MEDICINAL PLANTS OF FLORIDA  
C. H. Johnson 1960
- 32 — A HANDBOOK OF ALKALOIDS AND ALKALOID BEARING PLANTS  
R. F. Raffauf 1967



- 33 —ALKALOID BEARING PLANTS  
Technical Bulletin 1234  
U.S. Dept. of Agriculture 1962
- 34 —THE CHEMICAL ABSTRACT
- 35 —ARAB CHEMICAL RESEARCH PROJECT SEMINAR  
CHEMISTRY OF MEDICINAL PLANTS IN ARAB STA-  
TES  
(Abstracts ) Cairo 1978
- 36 —THE ESSENTIAL OILS  
E. Guenther
- 37 —DRUG ANALYSIS BY CHROMATOGRAPHY AND MI-  
CROSCOPY  
E. Stahl 1973
- 38 —LES PLANTES MEDICINALES  
E. Perrot et R. Paris 1971
- 39 —PRECIS DE MATIERE MEDICALE  
R. R. Paris et Mme H. Moyse 1971
- 40 —GUIDE DE PLANTES MEDICINALES  
P. Schauenberg and F. Paris 1974
- 41 —ENCYCLOPEDIA DES PLANTES MEDICINALES  
Tina Cecchini 1975
- 42 —PLANTES AROMATIQUES ET CONDIMENTS  
R. Quinch 1977
- 43 —ELEXIR ET SIROPS DE PLANTES MEDICINALES  
T. Cecchini 1976
- 44 —PHYTOTHERAPIE ( TRAITEMENT DES MALADIES  
PAR LES PLANTES )  
Dr. J. Valnet 1976

- 45 —HERBES MEDICINALES  
H. Fluck 1977
- 46 —CONTRIBUTION AU RECENSEMENT DES PLANTES  
MEDICINALE DE COTE D'IVOIRE  
E. Adjanohoun 1979
- 47 —MEDICINE TRADITIONNELLE ET PHARMACOPEE  
CONTRIBUTION AUX ETUDES ETHNOBOTANIQUES  
ET FLORISTIQUES AU MALI  
E. J. Adjanohoun et L. Ake Assi , JJ.  
Floret , S. Guinko , M. Koumare , A. M. R.  
Ahyi , J. Raynal 1980
- 48 —FLORE ET MEDECINE TRADITIONNELLE MISSION  
D'ETUDE AU RWANDA  
J. Rayal , G. Troupièèèèè et P. Sita 1980
- 49 —CONTRIBUTION A L'IDENTIFICATION ET AU RE-  
CENSEMENT DES PLANTES UTILISEES DANS LA  
MEDECINE TRADITIONNELLE ET LA PHARMACO-  
PEE EN REPUBLIQUE CENTRAFRICAINE  
L. Ake Assi , J. Abeye , S. Guinko  
R. Giguet et Y. Bengavou 1980
- 50 —LE PLANTE MEDICINALI  
Dott. L. P. Da legnano 1973
- 51 —FLORA ECONOMICA DELLA LIBYA  
Alessandro Trotter 1915
- 52 —HANDBUCH DES ARZNEI « UND  
GEWURZPFLANZENBAUES DROGENGEWINNUNG  
Von Prof. E. F. Heeger 1956
- 53 —DAS GROBE FARBIGE BUCH DER HEILPFLANZEN  
UND IHRE ANWENDUNG  
Rolf . Zieger 1980

54 —

النباتات الطبية زراعتها ومكوناتها  
دكتور فوزي طه قطب حسين

طرابلس ١٩٧٩

55 —

التداوي بالأعشاب  
دكتور أمين رويحة

بيروت ١٩٧٣

56 —

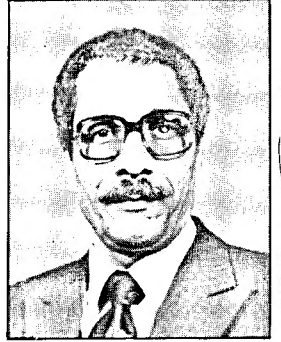
الغذاء لا الدواء  
دكتور صبري القباني

بيروت ١٩٦٩

57 —

التصنيف التطوري للنباتات الزهرية والأساس السيتولوجي الوراثي  
دكتور صلاح الدين عيد

القاهرة ١٩٧١



كتاب النباتات الطبية في ليبيا هو الفلورا الطبية الليبية الذي يعتبر مكملاً للفلورا العامة الليبية وكلاهما من المراجع الأساسية التي تسجل التراث العلمي لليبية وتحافظ عليه عبر الأجيال ، هذا بالإضافة الى ان كتاب النباتات الطبية في ليبيا يعتبر مرجعاً لا غنى عنه لجميع المشتغلين في مجال الصيدلة وخصوصاً النباتات الطبية والناتج الطبيعية وقد جمع المؤلف في هذا الكتاب معلومات كاملة وشاملة عن ٣٥٢ نبات من النباتات التي تنمو على ارض الجماهيرية العربية الليبية الشعبية الاشتراكية بطريقة مسلسلة ومنظمة وسهلة تساعد المتخصص والباحث وطالب الصيدلة وجميع المشتغلين في هذا المجال .

وقد تخصص المؤلف الاستاذ الدكتور فوزي طه قطب في مادة العقاقير والنباتات الطبية لمدة تزيد على خمسة وعشرين عاماً ( ما يقرب من ربع قرن ) وقد ولد المؤلف في القاهرة عام ١٩٢٩ ويحمل الدرجات العلمية الآتية :

- ١/ بكالوريوس زراعة من جامعة عين شمس عام ١٩٥٢ .
- ٢/ دبلوم في التربية وعلم النفس من جامعة الاسكندرية عام ١٩٥٣ .
- ٣/ بكالوريوس في العلوم الصيدلية من جامعة الاسكندرية عام ١٩٥٦ .
- ٤/ ماجستير في الصيدلة تخصص عقاقير من جامعة اوهايو بأمريكا عام ١٩٦٠ .
- ٥/ دكتوراه في الصيدلة تخصص عقاقير من جامعة اوهايو بأمريكا عام ١٩٦٣ .

وقد قام المؤلف طوال حياته بالعديد من الابحاث في كيمياء النباتات الطبية كما حضر الكثير من المؤتمرات الدولية وقام بالعديد من الزيارات العلمية شملت جميع الدول العربية وكثير من دول اوروبا وامريكا وجنوب شرق آسيا والهند وغرب افريقيا .

وللمؤلف عدة مؤلفات اخرى في مجال العقاقير والنباتات الطبية منها كتاب « النباتات الطبية زراعتها ومكوناتها » ، وقد عمل المؤلف استاذاً مساعداً بكلية الصيدلة بجامعة الاسكندرية حتى عام ١٩٧٣ ثم انتقل الى ليبيا حيث يعمل استاذاً ورئيساً لقسم العقاقير بكلية الصيدلة بجامعة الفاتح .



# النباتات الطبية في البحرين

د. فوزي قطب

الدار العربية للموسوعات